Dear Sir

By your request I timed the water in the measuring Canal in the York Co's Yard and found the following results viz —

Nov 22/75 From 3. To 3.30 P.M.

From 3. to 3.30 P.M. 378 ft. per Sec.

" 3.30. to 4 " 377.17 " " "

Nov 23/75

From 11.10 to 11.40 AM 358.98 " " "

" 2 to 2.40 PM 383.01 " " "

4) 1499.16

374.79

Quere: was this bench taken as 0 + B.S. at 7.52? W. S. Dennett. 1

Sta.	Back	Fore	Diff.	Total + or −	Remarks
	~~7.57~~				to a Bench on the
1	7.52	1.52	+ 6.00	+ 6.000	Ledge marked
2	1.52	1.69	− .17	+ 5.830	Opposite the front
3	11.025	1.037	+ 9.988	+ 15.818	door of the brick House
4	10.809	.315	+ 10.494	+ 26.312	on the opposite side
5	4.057	7.577	− 3.520	+ 22.792	of the river
6	3.790	4.544	− .754	+ 22.038	in the road Opposite a Barn
7	4.291	3.059	+ 1.232	+ 23.270	
8	3.99	1.225	+ 2.765	+ 26.035	B. on Ledge
9	10.22	8.515	+ 1.705	+ 27.740	
10	3.466	2.394	+ 1.072	28.812	to a Cross fence
11	3.407	5.444	− 2.037	26.775	
12	5.906	7.386	− 1.480	25.295	to an Aqueduct
13	5.430	.818	+ 4.612	29.907	
14	9.724	.383	+ 9.341	39.248	in road foot of Hill
15	11.300	.520	+ 10.780	50.028	
16	10.901	.417	+ 10.484	60.512	
17	9.857	.352	+ 9.505	70.017	
18	10.741	.496	+ 10.245	80.262	
19	10.958	.455	+ 10.503	90.765	
20	10.909	1.342	+ 9.567	100.332	
21	5.487	2.785	+ 2.702	103.034	
22	6.517	4.564	+ 1.953	+ 104.987	
	161.825 −	56.838 =	+ 104.987		

	Back	For	Diff	Total + or −	Remarks
	161.825	56.838		+ 104.987	
23	.718	7.111	− 6.393	98.594	
24	10.560	.447	+ 10.113	108.707	Opposite a one story
					Brick building up
25	8.671	6.594	+ 2.077	110.784	to a bench on a mound
26	1.020	10.815	− 9.795	100.989	Stone by an Oak tree
27	.322	11.120	10.798	90.391	at the corner of a lane
28	.375	10.910	10.535	79.856	leading up to a house on
29	.600	10.883	10.283	69.573	the right
30	.464	10.800	10.336	59.237	
31	.680	11.018	10.338	48.899	
32	.958	10.920	9.962	38.937	
33	.755	10.760	10.005	28.932	
34	.506	7.318	6.812	22.120	with 14.30' below North end C.B. Bridge
35	2.900	.460	+ 2.440	24.560	
36	11.000	.411	10.589	35.149	
37	11.035	.438	10.597	45.746	
38	10.812	.392	10.420	56.166	
39	10.935	.320	10.615	66.781	
40	10.832	.465	10.367	77.148	
41	11.195	.377	10.818	87.966	
42	11.152 ~~10.077~~	.344	10.808	98.774	
43	11.138	.294	10.839	109.613	
	178.648	169.035			

	B	F	D	I +or−	Remarked
	278.648	169.035		109.613	
44	11.200	1.155	4.045	113.658	To a Bench on Ledge Marked $\frac{1}{B}$ On the right Hand side of road 8 feet from to S. Falls
45	7.155	.365	6.790	120.448	
46	10.985	.333	10.652	131.150	To a Bench on a W. Oak tree in the portage
47	7.136	3.571	3.565	134.665	
48	3.571	.496	3.075	137.740	
49	11.265	1.482	9.783	147.523	To a Bench on a Rock on the left side of the road Marked $\frac{1}{D}$
50	10.650	.703	9.850	157.373	To a + on Ledge
51	7.727	2.368	5.359	162.732	To a bench on the Ledge on the road opposite a Oak tree Bench Marked $\frac{2}{D}$.
52	2.368	11.531	2.863	160.569	
3	3.445	5.833	2.388	158.181	
4	1.558	10.833	9.275	148.906	
5	.477	1.278	.801	148.105	Bench on Granite Stone
6	8.927	.318	8.609	156.714	
7	7.590	10.406	2.816	153.898	
8	1.078	11.103	10.025	143.873	
9	1.239	10.102	8.863	135.010	
60	.558	10.663	10.105	124.905	
1	.493	11.037	10.544	114.361	
2	.475	10.911	10.436	103.925	
3	.333	10.532	10.199	93.726	
4	3.245	5.941	2.696	91.057	To a bench on a rock at S Falls Dam
65	2.079	10.281	7.902	83.149	
	382.625	299.276			

19.409

	B.	F.	D.	T.D.	
	382.425	299.276		83.149	
66	7.434	9.890	− 2.456	80.693	to a bolt in rear of Chisholm's office on a level with E end of Dam
7	9.890	.613	+ 9.277	89.970	
8	11.132	.409	+ 9.723	99.693	to a bench in S.E of Chisholm's Office
9	3.850	.810	+ 3.040	102.733	
70	8.117	5.120	+ 2.997	105.730	
1	5.968	2.617	+ 3.351	109.081	Strikes the bottom of the base board under the eaves of the White House
2	5.258	5.286	− .028	109.053	
Aug 26th 3	1.819	1.687	+ .132	109.185	to a + on the Ledge on the hill North of the Bradley House
4	6.820	.414	+ 6.406	115.591	
5	11.169	.643	+ 10.526	126.117	top of 2d story windows in new House about one ft. below center of Gable window in White house
6	9.655	.651	+ 9.004	135.121	
7	5.395	.483	+ 4.912	140.033	
8	9.674	.360	+ 9.314	149.347	
9	9.749	.718	+ 9.031	148.378	
80	4.646	7.382	− 2.736	155.642	to sight Any in road
1	3.573	8.135	− 4.562	151.080	
2	3.354	8.570	− 5.216	145.864	
3	1.268	5.857	− 4.589	141.275	
4	6.993	3.485	+ 3.508	144.783	
5	7.487	.731	+ 6.756	151.539	
6	5.584	.377	+ 5.207	156.746	
7	8.025	9.632	− 1.607	155.139	

	B.	F.	D.	T. D.	
	528.285	373.146		155.139	
88	.570	8.530	7.960	147.179	
9	6.953	7.034	1.381	146.798	
90	3.573	11.765	7.192	138.606	
1	.395	10.780	10.385	128.221	
2	.722	10.319	9.597	118.624	
3	7.102	10.335	3.233	116.391	
4	.951	10.821	9.907	106.484	
5	.367	6.993	6.626	98.858	
6	3.654	6.765	3.111	95.747	To South end of Dam Mills Dam
7	7.083	7.873	.790	95.957	On the North Abutment of New Dam
8	9.445	6.161	3.284	98.241	to a Bench on the Ledge on the N.E. Side of Road marked E
9	3.194	1.444	1.750	99.991	To bench on Ledge in Ditch marked F
100	1.444	3.041	1.597	98.394	
1	.693	11.125	10.432	87.962	To surface of water in the "Eddy"
2	1.316	11.069	6.753	81.209	
3	11.069	.306	10.763	91.972	
4	~~11.225~~	~~2.002~~	9.632	~~101.604~~	
27 4	11.225	.559	10.666	102.638	
5	9.555	.467	9.088	111.726	
6	9.411	1.191	8.220	119.946	
7	8.439	.487	7.952	127.898	
8	8.338	.540	7.793	135.691	
	635.782	500.091			

	B.	F.	D.	S. D.	
	635.782	500.091		135.691	
109	10.862	.534	+10.328	146.019	
10	11.180	.470	+10.710	156.729	
11	8.628	1.194	+7.434	164.163	
12	9.362	.461	+8.901	173.064	
13	9.692	.980	+8.712	181.776	
14	11.405	1.996	+9.409	191.185	to road by Col. Berry's
15	5.231	5.470	−.239	190.946	in a sheet
16	5.188	4.517	+671	191.617	
17	5.457	5.631	−.174	191.443	
18	4.514	4.782	−.268	191.175	
19	6.467	3.317	+3.150	194.325	
20	7.626	1.363	+6.263	200.588	
1	6.486	4.339	+2.147	202.735	
2	5.397	3.508	+1.889	204.624	
3	4.990	.677	+4.313	208.937	{top of underpinning {N. E. Corner [illegible] Meeting House
4	.677	11.106	−10.429	198.508	
5	2.736	5.350	−2.614	195.894	
6	1.893	11.260	−9.367	186.527	
7	.902	8.037	−7.135	179.392	Sill [illegible] House
8	2.305	6.429	−4.124	175.268	
9	2.836	6.005	−3.169	172.099	
30	3.323	5.757	−2.434	169.665	
	762.939	593.274			

	B				
	762.939	593.274		+169.665	
130	3.294	6.753	−3.459	166.216	
1	1.000	10.747	−9.747	156.459	
2	1.246	8.848	−7.602	148.857	Bench on ledge near head of road for Capt. Marshal D+
3	8.848	10.887	−2.039	146.818	
28th 4	.249	7.210	−6.961	139.857	Top of Hill South Side of Ravine
5	3.448	4.940	−1.492	138.365	
6	6.861	5.945	+.916	139.281	
7	2.768	5.309	−2.541	136.740	
8	4.130	4.838	−.708	136.032	
9	5.714	6.875	−1.161	134.871	
140	4.244	10.815	−6.571	128.300	
1	.481	10.654	−10.173	118.127	Ins. cuts top of front door of
2	2.121	10.951	−8.831	109.297 ~~+10.297~~	Moses Dennis House
3	1.237	10.794	−9.557	99.740	
4	1.747	6.150	−4.403	95.337	
5	4.288	7.101	−2.813	92.524	Surface of Water in Brook
6	7.101	4.028	+3.073	95.597	
7	9.019	.714	+8.305	103.902	Ins cuts about 1 ft. below
8	10.958	.530	+10.428	114.330	top 2d. Story window New Hous
9	8.850	.437	+8.413	122.743	
150	10.316	.866	+9.450	132.193	
1	10.550	2.251	+8.299	140.492	
	871.409	730.917			

8

	B	F.	D.	ID.	
152	87.469	730.917		140.492	
3	7.234	2.210	+ 5.024	145.516	Rollin
4	4.596	7.200	− 2.604	142.912	
5	4.762	2.819	+ 1.943	144.855	
6	3.660	10.787	− 7.127	137.728	To bend on rock in road to S. Falls th. Sec 11
7	10.787	3.570	+ 7.217	144.945	
8	7.060	3.077	+ 3.983	148.928	Offsets Capt. Brown
9	6.907	3.616	+ 2.291	151.219	
160	8.598	3.272	+ 5.326	156.545	
	1.219	7.336	− 6.117	150.428	
	2.820	11.035	− 8.215	142.213	
	.676	10.661	− 9.985	132.228	
	1.592	10.960	− 9.368	122.860	
	1.452	10.635	− 9.183	113.677	
	.764	10.160	− 9.396	104.281	
	.753	10.186	− 9.433	94.848	
	2.552	8.367	− 5.815	89.033	
	3.504	3.633	− .129	88.904	
	6.428	4.177	+ 2.251	91.155	To Bench on rock at S. Falls
	.348	10.603	− 10.255	80.900	S. Falls Dam
	146.121	865.221			

	B.	F.	D.	I.D.	Remarks
1850					
Aug 29	891.661	753.933		+ 137.728	Bench 156
	1.712	6.392	− 4.680	133.048	
	4.240	4.901	− .661	132.387	
	4.945	7.327	− 2.382	130.005	
	2.770	5.952	− 3.182	126.823	
	3.534	9.127	− 5.593	121.230	
	2.785	9.745	− 6.960	114.270	
	2.453	5.546	− 3.093	111.177	
	2.393	9.635	− 7.242	103.935	
	3.269	4.623	− 1.354	102.581	
	4.806	5.695	− .889	101.692	
	4.859	4.462	+ .397	102.089	
	3.958	8.737	− 4.779	97.310	Surface of water in Rock Opposite Bug in Hmm
	8.737	5.732	+ 3.005	100.315	
	6.080	4.683	+ 1.397	101.712	
	4.617	4.483	+ .134	101.846	
	4.829	5.002	− .173	101.673	
	5.092	4.610	+ .482	102.155	
	4.890	3.311	+ 1.579	103.734	
	3.113	4.783	− 1.670	102.064	
	4.755	4.900	− .145	101.919	
	5.032	5.556	− .524	101.395	
	3.966	4.628	− .662	100.733	
(8	91 66 1	75 3 90 3			
	92.835	129.830			

B.	F.	D.	I.D.	
98.496	883.763		100.733	
4.197	4.223	-.026	100.707	
6.785	4.691	+2.094	102.801	
4.287	5.612	-1.325	101.476	
4.357	4.619	-.262	101.214	
2.077	10.579	-8.502	92.712	
.520	10.718	-10.198	82.514	
.975	7.829	-6.854	75.660	
.726	6.561	-5.835	69.825	
4.263	8.320	-4.257	65.568	Surface of water in Davis' Brook
8.320	2.281	+6.039	71.607	Bridge
10.958	.841	+10.118	81.725	to Bench T. on Ledge South side of road
11.030	.425	+10.605	92.330	
9.748	2.964	+6.784	99.114	
6.372	2.524	+4.348	103.462	
9.400	.370	+9.030	112.492	
11.218	4.122	+7.096	119.588	
7.218	3.976	+3.242	122.830	
.232	11.005	-10.773	112.057	
.889	10.891	-10.002	102.055	
2.420	5.624	-3.204	98.851	
3.416	8.820	-5.404	93.447	
10.35	10.779	-10.244	83.203	Bridge
994.239	101.036			

B.	F.	Diff.	I. D.	
1094.239	1011.036		83.203	
5.804	8,805	3.001	80.202	
4,163	5,817	1.654	78.548	
4.217	4.360	.143	78.405	
3.033	5.240	2.207	76.198	Opposite Cannes House
11.316	8.830	1.484	71.714	
4.878	1.256	3.622	75.336	
5.893	7.179	1.286	74.050	to Bench T. on Ledge
5.050	2.134	2.916	76.966	East of Union falls road
2.134	6.095	3.961	73.005	Or Union Row Rd
1.827	10.251	8.424	64.581	
.356	10.528	10.172	54.409	Surface of Water in Brook
10.528	6.013	4.515	58.924	
5.876	.923	4.953	63.877	
10.164	.204	9.960	73.837	
11.148	.770	10.378	84.215	
11.280	.537	10.743	94.958	
7.635	3.628	4.007	98.965	right
5.036	.378	4.658	103.623	
9.025	2.532	6.493	110.116	
6.659	4.910	1.749	111.865	
5.866	6.825	.959	110.906	
2.252	1.746	.506	111.412	
1221.409	109.997			

	B.	F.	Diff.	I. D.	
12	21.409	109.997		111.412	
	1.923	8.910	− 6.987	104.425	
	.702	10.868	− 10.166	94.259	on Libby Dam
	.242	6.166	− 5.924	88.335	Bridge
	6.346	3.602	+ 2.744	91.079	
	5.278	3.870	+ 1.408	92.487	
	8.500	.427	+ 8.073	100.560	
	10.223	1.496	+ 8.727	109.287	
	7.906	.645	+ 7.261	116.548	
	11.140	.780	+ 10.360	126.908	
	8.020	4.521	+ 3.619	130.527	
	8.073	5.643	+ 2.430	132.957	
3	3.422	10.775	− 7.353	125.604	
	.990	11.096	− 10.106	115.898	
	4.178	2.623	+ 1.555	117.453	
	2.396	4.479	− 2.083	114.870	
	4.630	6.981	− 2.351	112.519	
	5.072	6.010	− .938	111.581	
	1.106	10.684	− 9.578	102.003	
	.650	9.488	− 8.838	93.165	
	6.614	5.440	+ 1.174	94.339	
	4.667	4.628	+ .039	94.378	to Bench on a Marble Base
	223.507	229.129			

	B.	F.	D.	T. D.	
	1323.507	1229.129		94.378	
Aug 31.–	5.221	1.532	+ 3.689	98.067	
	4.803	4.814	− .011	98.056	
	8.343	2.226	+ 3.156	101.212	Opposite a Meeting House
	6.768	9.279	− 2.517	98.701	Down the Pass (4 Comm.)
	2.812	2.821	− .119	98.682	
	3.467	2.269	+ 1.198	99.880	
	9.965	5.129	+ 4.836	104.716	Opposite 6.12. Dennis's House
	2.180	5.129	− 2.949	101.767	
	2.291	7.098	− 4.807	96.960	
	.779	11.044	− 10.265	86.695	
	.318	10.586	− 10.268	76.427	
	.384	11.028	− 10.644	65.783	
	.964	10.959	− 9.995	55.787	
	.765	10.775	− 10.010	45.778	
	.624	11.036	− 10.412	35.366	
	1.277	9.766	− 8.489	26.877	
	.697	10.693	− 9.996	16.881	
	2.226	10.138	− 8.212	+ 8.669	
	.322	9.450	− 9.128	.459	Water
	9.464	3.784	+ 5.680	5.221	Bench A
	1379.025	1384.246			
	4.229	221			

5.221
6.000
.779 Diff

	B.	F.	Diff.	I. D.	

B.	F.	D.	I. D.	
I.				
~~6.156~~			76.966	Above Bench A
6.156	.462	+ 5.694	82.660	
10.495	.533	+ 9.962	92.622	
9.964	1.578	+ 8.419	101.041	
7.239	7.145	+ .194	101.135	
.229	6.812	− 583	100.552	
4.146	4.810	− 664	99.888	
1.864	8.388	− 6.524	93.364	Opposite Watson's Mable
8.694	2.899	+ 5.795	99.159	
8.518	.376	+ 8.142	107.301	
9.558	4.012	+ 5.546	112.847	to Bench K. on Ledge near S. Williams's
5.601	1.699	+ 3.902	116.749	
2.381	4.911	− 2.530		
6.914	3.470	+ 3.444		
5.243	4.574	.669		
4.890	5.352			
5.485	4.810			
4.052	4.944			
5.410	5.373			
4.121	5.331			Opposite Lowell's
4.036	5.762			
3.928	5.705			
4.418	4.937			

B.	A.		
5.195	4.365		
3.654	3.218		
4.256	5.909		School House near W. Bench
4.998	4.974		
3.792	5.922		
2.770	4.662		
3.301	6.215		
5.487	4.919		
5.579	3.695		
6.667	5.740		by Wilen Ave
4.587	4.960		
3.964	5.690		
4.679	5.137		
4.578	4.597		
3.445	5.271		
4.988	5.450		
4.111	4.972		Bench on H. Ave

Levels from a bench on a rock near the easterly end of the East dam of the Berlin Mills Co., Said bench is two feet above the average top of Said East Dam ~~and~~ at the bottom of Brush Brands Nov—15. 1871—

	B.	F.	Diff.	Total	
B. on Rock	3.59	1.616	+ 1.974	1.974	
	7.41	4.94	+ 2.47	4.444	
	5.91	5.33	+ .58	5.024	
	5.368	2.08	+ 3.288	8.312	
	5.205	8.085	— 2.880	+ 5.432	
	3.55	10.65	— 7.10	— 1.668	
	10.65	3.82	+ 6.83	+ 5.162	
	6.637	4.325	+ 2.312	+ 7.474	
	3.68	4.36	— .68	+ 6.794	
	6.184	9.14	— 2.956	+ 3.838	E. End of Hutchins' Dam
	1.89	2.56	— .67	+ 3.168	Middle of Dam
	2.56	4.206	— 1.646	+ 1.522	West end of do
	4.206	7.71	— 3.504	— 1.982	Water S. Side of do
	7.718	5.308	+ 2.410	+ .428	do N. " " do
	5.308	5.34	— .032	+ .396	
	5.51	5.533	— .025	+ .371	Water S. side Brush D.
	9.415	8.475	+ .940	1.311	On Brush Dam.
	94.791	93.480			

Nov 19 1874

	B.	F.	D.	Fields	
Brot up.	94.791	93.480		+ 1.311	on Bush Dam
	8.475	2.93	+ 5.545	+ 6.856	
	4.85	2.195	2.655	+ 9.511	Bench on rock near Covered Bridge
	6.55	4.157	2.393	+ 11.904	
	5.60	5.986	− 1.386	+ 11.518	
	2.27	12.830	− 10.560	+ .958	Water foot of P. Isl.
	12.83	4.650	+ 8.180	+ 9.138	
	3.90	10.416	− 6.516	+ 2.622	
	10.145	3.184	+ 6.961	+ 9.583	Fernalds field S. Westerly Corner E.
	6.79	9.834	− 3.044	+ 6.539	Stake A. saving
	9.834	3.93	+ 5.904	+ 12.443	High part of flowed ground
	4.095	6.47	− 2.375	+ 10.068	Stake B.
	6.47	8.155	− 1.685	+ 8.383	" C.
	8.155	7.45	+ .705	+ 9.088	Low part of Interval
	6.705	8.98	− 2.275	+ 6.813	Low Spot near Stump
	8.60	4.64	+ 3.96	+ 10.773	
	6.53	4.41	+ 2.12	+ 12.893	
	5.766	4.815	+ .951	+ 13.844	
	3.26	6.29	− 3.03	+ 10.814	Opposite Fernalds House near Bank of River
	2.80	12.55	− 9.75	+ 1.064	water foot of Davis Island
	12.55	.845	+ 11.705	+ 12.769	Highway
	8.45	.29	+ 8.16	+ 20.929	"
	10.46	.37	+ 10.09	+ 31.019	"
	24.9876	218.857			

	B.	A.			
Brit[ish] Am[erican]	249.876	218.857		31.019	Highway
	7.71	9.58	1.87	29.149	do
	.45	5.976	5.526	23.623	do
	1.178	10.90	9.722	13.901	do
	.346	2.367	2.021	14.880	Evans field
	2.90	5.41	2.51	9.370	
	4.560	2.490	2.070	11.440	Thompsons
	6.440	4.700	1.740	13.180	"
	4.930	.990	3.940	17.120	
	2.740	7.440	4.700	12.420	Opposite Old Bridge
	5.700	10.150	4.450	7.970	Ravine
	10.150	5.330	4.820	12.790	Harris
	3.535	9.920	6.385	6.405	Ravine
	9.920	1.650	8.270	14.675	
	.440	13.500	13.060	1.615	water front of sign
	13.500	11.250	2.250	3.865	
	4.596	4.770	.174	3.691	water mark of Thompsons Brook
	5.050	5.130	.080	3.611	
	4.436	3.790	.646	4.257	
	4.760	6.120	1.360	2.897	water at head of Rapids
	6.120	0.000	6.120	9.017	Bench on Fir
	349.337	340.320			

Evans	4.56	2.49
	6.44	4.[illegible]
	4.93	.99
	2.74	7.[illegible]
	5.70	10.15
	10.15	5.33
	3.535	9.92
	9.92	1.65
	~~1.68~~	
	1.44	13.32
	13.[illegible]	11.25
	4.396	4.27
	5.55	5.13
	4.436	3.79
	4.76	6.12
	6.12	

Thompson

″

″

Op. Old B. Bridge

Ravine T.

Above

ravine

Water foot

of Rapids

Mouth of Thomps Brook

Water above Rips

	B	I	D.	I. D	
Brot forward	108.116	98.605		9.511	
Road	6.550	4.157	2.393	11.904	
	5.600	5.986	.386	11.518	
	2.270	12.830	10.560	.958	Water front of Island
	12.830	4.650	8.180	9.138	
	3.900	10.416	6.516	2.622	
	10.145	3.184	6.961	9.583	SW Cor. Fernalds field
	6.790	9.831	3.041	6.539	State A.
	9.831	3.930	5.901	12.143	High pair flowed ground
	4.095	6.470	2.375	10.068	B
	6.470	8.155	1.685	8.383	C
	8.155	7.450	.705	9.088	Sou part of Island
	6.705	8.980	2.275	6.813	Sou part new Stump
	8.600	4.640	3.960	10.773	
	6.530	11.410	2.120	12.893	
	5.766	4.815	.951	13.844	
	3.260	6.290	3.030	16.814	Opposite Fernalds House near Bank in water front of
	2.800	12.550	9.750	1.064	Davis Island
	12.550	.845	10.705	12.769	Highway
	8.150	.290	8.160	20.929	"
	10.460	.370	10.090	31.019	"
	7.710	9.580	1.870	29.149	"
	.450	5.976	5.526	23.623	"
	1.178	10.900	9.722	13.901	
	.316	2.367	2.021	11.880	
262.460	2.900	5.410	2.510	9.370	Co. ane

	262.460	253.090		9.370	
Evans	4.560	2.490	2.070	17.440	Thompson
	6.440	4.700	1.740	13.180	"
	4.930	.990	3.940	17.120	"
	2.740	7.440	4.700	12.820	Opposite Old Dredge
	5.700	10.150	4.450	7.970 / 3.830	Ravine
	10.150	5.330	4.820	12.792 / 8.650	Dam
	3.535	9.920	6.385	6.407 / 2.265	Ravine
	9.920	1.650	8.270	11.677 / 10.535 / 1.617	water power of
	.440	13.500	13.060	.475	rapids
	13.500	11.250	2.250	3.867	
	11.596	11.770	.174	3.693	mouth of Thompson Creek
	5.050	5.130	.080	3.613	
	4.436	3.790	.646	4.259	
	4.760	6.120	1.360	2.899	water above rapids
	6.120	0.000	6.120	9.019	Bench on fir tree
	349.337	340.320			

Evans field

Levels in Thompsons field

Back Sights on plowed ground

B.	F.		
.97	11.70	10.73	To Water in river
11.70	6.77	4.93	To New Edge of Road
12.67	18.47		

Thompson's Back Sights in new road near the road

B			
5.45	6.86	1.41	Over Ridge
6.86	4.15	2.71	Ridge 800 ft.

Thompson's land drains through Evans' land

Levels from Head of race
at Table Rock

B.	F.	
5.34	1.10	
9.36	2.79	
7.16	3.14	
4.90	1.08	
4.74	3.56	
31.50	11.67 = 19.83 ft. +	Ft of Rock Run Mill Dam 58

Berlin Falls Nov^r 20. 1874.

Dear Sir. From a Survey made on the 18th. 19th & 20th inst^s. I find water in the river at top of East Dam. (bottom of flunk boards.)

Water South side of Hutchinson Dam less than one tenth of a foot higher than at East Dam — Water above or North side of N. Dam two $\frac{45}{100}$ ft. above East Dam

The Easterly end of the Hutchinson Dam five $\frac{84}{100}$ above E. Dam — Middle of Hutch^n Dam five $\frac{17}{100}$ ft. above E. Dam. Westerly end of Hutch^n Dam three $\frac{52}{100}$ ft above E. Dam. — Gap on Southerly side of River where Old Mill Stood, Thirty four feet wide between rocks — I find by actual experiment that two $\frac{45}{100}$ ft. of Water on the East Dam will flow to a level with the water on the North Side of Hutch^n Dam and that it does

(34)

not perceptibly raise the water in the river above the W. Dam as might be supposed in theory

I find average top of Old Brush Dam three $\frac{31}{100}$ ft. above E. Dam

I find land at S. Wetherby Corner of E. Hempsteads field Eleven $\frac{58}{100}$ ft. above E Dam ——

In a ravine in Hempsteads field at Stake "A" Eight $\frac{54}{100}$ above East Dam

High part of plowed Land $11\frac{44}{100}$ + E. Dam

Ravine Stake B. $12\frac{7}{100}$ + E. Dam

do do C. $10\frac{38}{100}$ + do

Low part of intervale $11\frac{9}{100}$ + do

Low Spot near Old Stump $8\frac{81}{100}$ + E. D.

Opposite Hempsteads House near bank of river $12\frac{81}{100}$ + E. Dam

Easterly end Evans field $13\frac{88}{100}$ + E. D.

Ravine near Elm Tree $8\frac{8}{100}$ + E. Dam ——

Thompsons land next the Highway obtains through Evans' ravine is about 12' + E. Dam

Opposite the "Old Bridge" on Thompsons Side $11\frac{22}{100}$ + E. Dam

On a ravine near the last Station $9\frac{97}{100}$ + E. Dam.

Harris land $14\frac{72}{100}$ + E. Dam

Ravine in do $8\frac{4}{10}$ + do

Water foot of Rapids $3\frac{62}{100}$ + E. Dam

Water Head of Rapids $4\frac{9}{10}$ + E. Dam

Top of a large rock near the Mill race $19\frac{80}{100}$ above "Table Rock"

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January 6. 1875

Levels in Shapleigh. from Square pond over two ridges to an Oak Tree

Sta	Dist	B.	F.	Diff	Total D.	
					+	
1	25	11.50	8.00	+ 3.50	3.50	
				+	+	
2	50	8.00	1.71	6.29	9.79	
				+	+	
3	19	11.71	3.00	8.71	18.50	
				+	+	
4	24	11.91	3.00	8.91	27.41	
				+	+	
5	20	3.00	0.00	3.00	30.41	
				−	+	
6	32	1.00	8.46	7.46	22.95	
				−	+	
7	25	.30	11.33	11.03	11.92	
				−	+	
8	22	1.33	11.73	10.40	1.52	
				−	−	
9	32	2.00	10.72	8.72	7.20	
				−	−	Change Curve
10	43	.67	6.67	6.00	13.20	Head at N. Ang. to the right
				+	−	
11	86	6.00	5.50	.50	12.70	
				+	−	
12	43	5.50	.81	4.69	8.01	
				+	−	
13	36	10.75	8.80	1.95	6.06	
				+	+	
14	38	8.80	.91	7.89	1.83	
				+	+	
15	21	10.12	.58	9.54	11.37	
				+	+	
16	27	11.00	.60	10.40	21.77	
				+	+	
17	33	7.63	1.75	5.88	27.65	in road
				−	+	
18	38	1.75	15.92	14.17	13.48	
				−	−	
19	49	.05	17.92	17.87	4.39	
				−	−	
20	35	.96	6.67	5.71	10.10	To Oak tree

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"Flying Levels"

Levels from Surface of Water in the Basin near Square pond in Shapleigh, to Long pond in Same Town

January 6. 1875.

	B.	F.			
1	11' 6"	8.	3.6	3.6	25
2	8	1.8½	6 3½	9 9½	50
3	11 8½	3	8.8½	18.6	19
4	11 11	3.	8.11	27 5	24
5	3.	0.	3	30.5	20
6	1.	8.5½	7 5½	22.11½	32
7	3½	11.4	11.0½	11.11	25
8	1.4	11.8¾	10.4¾	1.6¼	22
9	2.	10.7½	8 7½	7 1¼	32
10	.8	6 8	6.	13.1¼	43
	6.8	2.6½	4 1½	8.11¾	43
	10.10¼	4.9	6 1¼	2 10½	90
	4.9	7 11¾	3.2¾	6.1¼	50 No Stake
	11.10¾	8.5	3.5¾	2 7½	40 Stake
	8.5	8	7.9	5 2½	20 No Stake
	11.1	9.	2 1	7 3½	7 Stake
	9.	.5	8 7	15.10½	31
	1.11½	8.6	6 7½	9 3	40
	116.0½	106.9½			613

138

217

292

	116. 0½	106 9½		9. 3	613	
	1 7½	6. 6	4. 10½	4 4½	40	
	6. 6	9.	2. 6	1. 10½	46	
	9.	4	5.	6 10½	60	
	4.	6. 2	2. 2	4 8½	36	
	6. 2	2.	4 2	8 10½	68	
	1 ½	9. 9	8 8½	. 2	43	
	.3	9. 10	9. 7	9. 5	34	
	9. 10	13. 3	3. 5	12. 10	84	
	1. 3	12. 7¼	11 4¼	24 2¼	57	
	1¾	9.	8. 10¼	33 0½	76	
	2	9. 4	9. 2	42 2½	50	
	8. 5	16. 1	7. 8	50 10½	98	Shore of Long Pond
	4.	7. 8	3. 8	53. 6½		On Ice
	168. 5¼	221 11½			1297	

×	From	Station		10	Mark at No. Corner
11	6.	5. 6	0. 6	6	86
12	5. 6	9¾	4. 8¼	5. 2¼	43
13	10. 9	8. 9½	1. 11½	7. 1¾	36
14	8. 9½	11	7. 10½	15. 0¼	38
15	10. 1½	7	9. 6½	24. 6¾	24
16	11	7¼	10. 4¼	34 11½	27
	52. 2"	17. 2"½			254

	B	F	D	J D	Distance	
	52. 2"	17 2½		34. 11½	254	
17	7. 7½	1. 9	5. 10½	40. 10	33	in wood
18	1. 9	15. 11	14. 2	26. 8	58	
19	. ½	17. 11	17. 10½	8. 9½	49	
20	.11½	6. 8	5. 8½	3. 1	35	To Oak in corner
	62. 6½	59. 5½			429	
	59. 5½					
	3. 1					

7 40 3.25
3 25 7 11
7.11 1 065
10 205 1.09
9 545 59
5 167 7 335
53 10.605
273 10.08
3.81 9.682
2.18 9.34
49.440 60.150
49.44
10.71

4 345-0
4 1 1 25

Sta.	Dis.	B.	F.	D.	T. Dif.	Remarks
						Levels in Shapleigh for Spring-Vale M. Co. from Square pond to Long pond for Tunnel to convey water from S. pond to Long pond beginning Jan 29/75
						First back sight Surface of Ice in Square pond
		7.40	3.25	4.15	+4.15	Bench on Pine Tree
		3.25	7.11	3.86	+.29	Stake on East Shore of First pond
		7.11	1.065	6.045	+6.335	
		10.205	1.090	9.115	+15.450	
		9.515	.590	8.925	+24.375	
		5.167	7.335	2.168	+22.207	
		.530	10.605	10.075	+12.132	
		.273	10.080	9.807	+2.325	
		3.810	9.685	5.875	−3.550	
		2.180	9.34	7.160	−10.710	Oak Tree
		49.440	60.150			

Sta.	Dist. in feet	B.	F.	L.	L.L.	
Back	sight		top of Stake		East Shore of Fish pond	
	1045	.54	9.910	9.910		
	7.575	.325	7.250	17.160		
	8.620	.355	8.265	25.425		
	7.628	2.246	5.382	30.807	Top of ridge hay	1 ft. + ground
	2.246	9.290	7.044	23.763	Stake X	
	1.050	9.245	8.195	15.568		
	1.180	10.510	9.331	6.238		
	.130	10.560	10.430	4.192		
	.01	7.80	7.89	12.000	Top of Stake	
	38.884	50.889			marked 12'	

B. F. D. I. D.

Back to nail in Tree 8.8 + 13' below Tile pave

10.560	0.000	10.560	10.56	Nail in Maple
9.856	1.073	8.783	19.342	
10.330	1.164	9.166	28.509	
5.804	10.253	4.449	24.060	
.535	10.490	9.955	14.105	
.000	11.110	11.110	2.995	
.710	10.270	9.560	6.565	Oak Tree

13.2
8.8
4.4
6.56
10.96 – oak

6.565
8.800
2.235

7.60	5.00	1.600	1.000	Bottom of 13 ft Cut
8.80	0.00	8.80	7.700	Nail in Jun Tree
10.56	0.00	10.56	18.26	
9.856	1.073	8.783	27.043	
10.330	1.164	9.166	36.209	
5.804	10.253	4.449	31.766	
.535	10.490	9.955	21.805	
.000	11.110	11.110	10.695	
54.395	.710	10.270	9.560	1.135

Took the time that a floating body passed over the centre and surface of the flume ~~in the~~ prepared by Elisha Libby in the York Co's. yard, with the following results—

February 4. 1875—10½ A.M.

Flume 50 ft. long × 22 ft. wide

Water 6'. 1½" deep

17¾": 50' = 2.89' pr. sec

2.89' = 34.682 " "

	Sec.
	17¾ sec.
	18 "
	16 "
	17 "
	17¾ "
5)86.5	
17.3 av.	

Feby 5/75—10½ A.M.

16.1875" pr 50' = 3.089' pr 1 sec

3.089' = 37.068" pr sec.

Water 6'. 6" deep.

	Sec.
	14½
	16
	17½
	16.14
	16
	17
	16
	16½
8)129.5"	
16.18¾" av.	

Feby 3/75—2½ P.M.

15⅞ sec. pr 50' = 3.284+pr sec.

3.284+pr sec. = 39.417"+pr sec.

Water 5'. 11½" deep

	Sec.
	14½
	16
	14½
	16
	16
	14½
	16½
9)137	
15-2/9 av.	

$34.68'' - \sqrt{34.69} + .5 = 29.3''$ av. velocity

$37.068 - \sqrt{37.068} + .5 = 31.48$ " "

$39.417 - \sqrt{39.417} + .5 = 33.639$ " "

$34.68'' \mid 6.89 * 5.89 = 34.69 - 5.89 + .5 = 29.3''$ p. sec

26
108 | 968
864
1169 | 10400
10521

$37.0681 \mid 6.088 + 6.088 = 37.069 - 6.088 * .5 = 31.49$ av

36
1208 10680
9664
12168 101600
97344

$39.4170 \mid 6.277$ 33.64 av

36
122 341 39.417
244 6.277
12449 9770 33.14
8729 .5
12571 94100 33.64

$29.3'' \div 12'' = 2.442' \times 22' \times 6.1\frac{1}{2}'' = 329.06$ c.f. p. sec

$31.49' \div 12 = 2.624 \times 22 \times 6'.6'' = 375.23$ " "

$33.64'' \div 12 = 2.8 \times 22 \times 5.11\frac{1}{2} = 367.01$ " "

3 | 1071.30

$357.10 + 8' = 365.10$

H. F. Miles Eng. measured the water May 14. 1875 The Water in Measuring flume about 7 3/4' deep. the result was

Road from Boundaries to Mrs. O'Briens

Sta.	Dist.	B.	F.	Diff.	Total Diff.	
	50'	.73	2.50	1.77	1.77	Rock Sight North East Side of R. Road
1	"	2.50	4.03	1.53	3.30	
	"	4.03	7.12	3.09	6.39	
2	"	7.12	11.06	3.94	10.33	
	"	6.70	4.63	4.63	14.96	
3	"	4.63	10.09	5.46	20.42	
	"	2.27	7.20	4.93	25.35	
	25'	7.20	9.22	2.02	27.37	Cen of track
4	"	9.22	9.38	.16	27.53	
	50'	9.38	10.37	.99	28.52	
5	"	10.37	10.13	.24	28.28	
	"	10.13	8.07	2.06	26.22	
6	"	8.07	4.32	3.75	22.47	
	"	4.32	.26	4.06	18.41	
7	"	10.80	5.67	5.13	13.28	
	"	5.67	1.12	4.55	8.73	
8	"	10.71	6.05	4.66	4.07	
	"	6.05	1.73	4.32	.25	
9	"	11.30	6.80	4.50	4.75	
	"	6.80	4.08	2.72	7.47	
10	"	4.08	3.15	.93	8.40	
	"	3.15	2.43	.72	9.12	
11	"	2.43	.76	1.67	10.79	

Carried up

				+ 10.79	
	8.52	6.66	+ 1.86	12.65	
12	6.66	4.97	+ 1.69	+ 14.34	
	4.97	3.80	+ 1.17	+ 15.51	
13	3.80	3.77	+ .03	+ 15.54	
	3.77	4.71	− .94	+ 14.60	
14	4.71	6.70	− 1.99	+ 12.61	
	6.70	7.20	− .50	+ 12.11	
15	7.20	6.26	+ .94	+ 13.05	
	6.26	4.02	+ 2.24	+ 15.29	
16	4.02	86	+ 3.16	+ 18.45	
	12.10	8.17	+ 3.93	+ 22.38	
17	8.17	5.13	+ 3.04	+ 25.42	
	5.13	3.40	+ 1.73	+ 27.15	
18	3.40	2.10	+ 1.30	+ 28.45	
	210	213	− .03	+ 28.42	
19	2.13	3.42	− 1.29	+ 27.13	50' East of Jones' Gate

Flow of Water in the Nov – 22, 1875 – Dis 50 ft

P.M.	S2o H.M.S	1	2	3	4	5	6	7	8	9
3 —	3.30.0"	22"	20	18"	21"	20"	22"	20"	18"	21"
3.30.0"	4.0.0"	20"	18½	20	22	23	20	19	18	22
Nov – 23/75 –		Water in Canal 60,60 –								
11.10.0"	11.40.0"	20 in	21	21"	19"	21"	19"	19"	20"	
Nov – 23/75 –		Water in Canal 57,01 –								
2.0.0"	2.40.0"	24"	17	20	22	19	20	19½	19	20

P.M. 50 , × 22½ , × 7.52 = 8460 , 22.81

" 50 × 22½ × 7.52 = 8460 22.43

A.M. 50 × 22½ × 7.02 = 7897.5 22

P.M. 50 × 22½ × 7.53 = 8471.25 21.976

Bottom of Measuring Canal 43.48

50 ft. Canal York Yard
Water in Canal 5.1 — 43.48 = 7.52 Dep

10	11	12	13	14	15	16	17	18	19	20	21	22	Av.
20"	24"	23'	21"	24"	25"	23'	26"	26"	—	27"	25"	24"	22 8/24 in
21	19	22	23	26	22	25	29	24	27	25	24"	24"	22 40/100

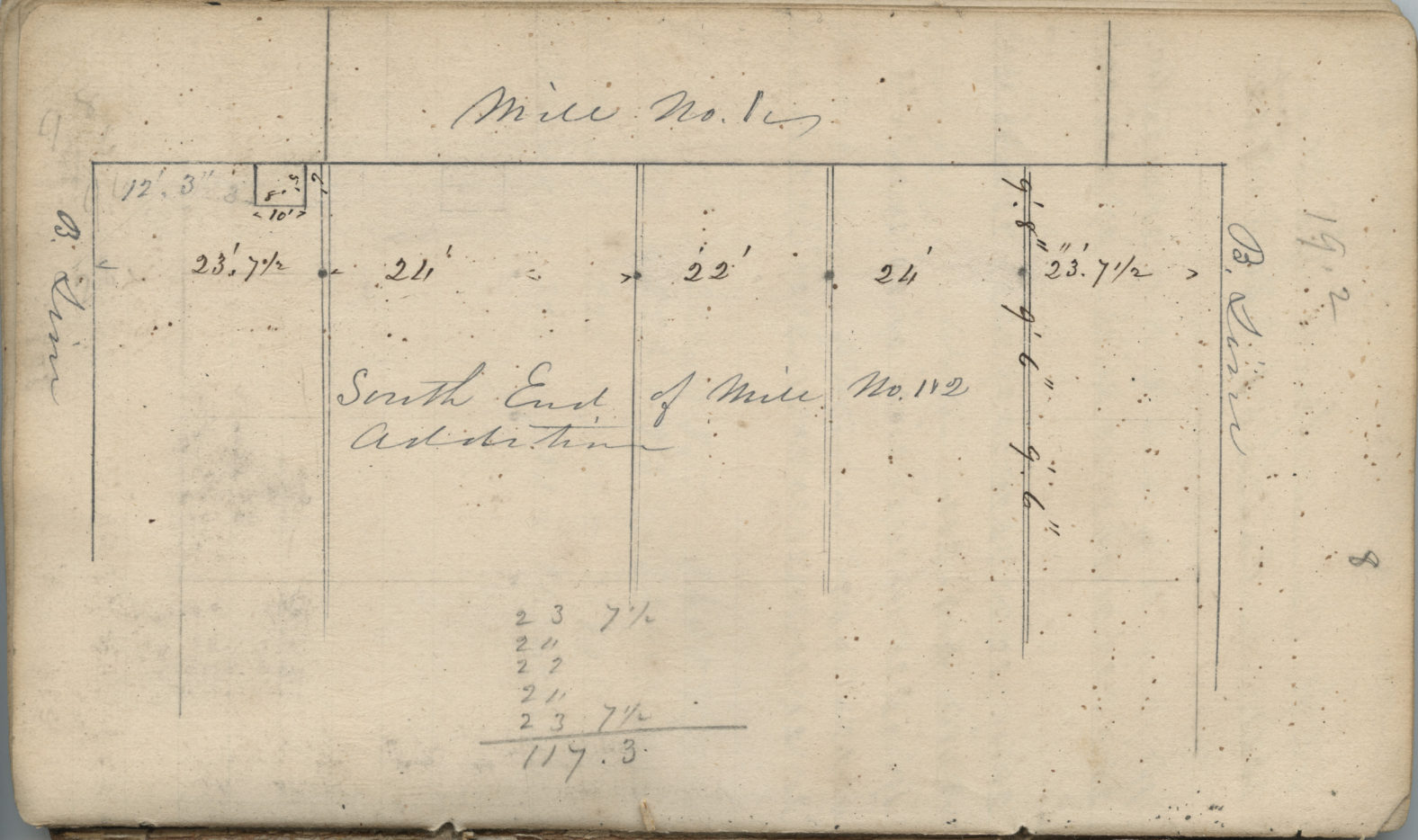
43.48 = ~~6.54~~ 7.02'

19	22"	20	19	24"	25"	25'	26"	27"	23"	24"	22"	26"	22"

43.48 = 7.53

20	21	23	20	23	24	25	21	—	29	27	24	24	21.97"

= 878
= 877.17) Av 877.59
358.98
885.01


Mill No. 1
12'. 3"
5'. 3"
2'
10'
23'. 7½
24'
22'
24'
9'. 8"
23'. 7½
9'. 6"
9'. 6"
B. Lane
B. Lane
South End of Mill No. 112
Addition
23 7½
21
22
21
23 7½
117.3

May 1, 1875

Stone from Ira Andrews for South Addition to Mills No. 1 & 2 Pepperell

Wall laid by John Buckley & depth taken from him, sides of wall filled in —

Sec. 10' x 6' x 5½ — 330'

" 9 x 8⅔ x 5½ — 429

" 20½ x 6 x 8½ — 1045

May 1st.

31' } 14 ft.
31½
6½

30 } 15 ft.
21½
26⅔

20 } 16 ft.
7½
4½
14

24
16½
27
8

268.8
598.8
2330
420.10
461.3
500.8
415.6

27) 4995.7 (185 yds
27
229
216

135
135

185
5½
29 Small
219½ yds

½ Diff between Andrews
& Diff 5½ yds

Box runners,
22
14
28⅓
33¾
Box runners
16
21
21
3
24
12
22½
Box runners
B Stone by Adams }
82
10⅔
19
13
12½ } 11 ft.

10
46
16
24
24
16¾ } 12 ft.

12⅓
4
15½
Adams 35 } 13 ft "

32
8⅓ } 14 ft.

598 2/3

24'
18
24
14 } 1

14
22
28
20
23
17 } 3

35
8
35
16 } By Adams

15
32
24 } 4 ft.

21
8 } 5 "

16
18
3½
Load Rimes } 6 ft.

"
16½
23½
50½ } 7 ft.

2330

Andrews

5" × 1.10 × 2⅓	21.5 ✓	6 × 2 × 2	24 ✓
5 × 4 × 1.10	36.8 ✓	3 × 3¼ × 1⅓	13 ✓
4 × 1½ × 1.10	11. ✓	6 × 3 × 1.10	33 ✓
4 × 1½ × 1.10	11. ✓	4 × 1⅓ × 1.10	9.9 ✓
4 × 1⅓ × 2	10.8 ✓	4 × 2 × 2	16 ✓
3 × 2 × 1.10	11. ✓	4½ × 2 × 1.10	16.6 ✓
4½ × 2" × 2⅓	21. ✓	5¼ × 1½ × 2.10	22.4 ✓
6 × 2 × 1¼	15. ✓	3 × 2 × 2	12. ✓
5 × 4 × 1½	30. ✓	3¹⁵/₁₆ × 3¾ × 3¼	45.8 ✓
10 × 3⅓ × 5/6	27.9 ✓	3.10 × 3½ × 2	24.3 ✓
4 × 4 × 1	16. ✓	5 × 3 × 1½	22.6 ✓
3 × 1.10 × 1.10	10.1 ✓	5 × 3 × 2	30 ✓
3½ × 3.10 × 1.8	13.5 ✓	5¼ × 3 × 2	31.6 ✓
4 × 1½ × ½	3. ✓	5¾ × 3 × 2	34.6 ✓
3½ × 2¹⁵/₁₆ × .10	8 ✓	3½ × 1½ × 1	5.3 ✓
6 × 3⅔ × 1	22. ✓	6 × 2⅔ × 2	32 ✓
4.10 × 2 × 2	19.4 ✓	4 × 3½ × 1½	21 ✓
4½ × 2½ × 2	22.6 ✓	3 × 2 × 2	12 ✓
4 × 2 × 2	16. ✓	3 × 2½ × 2	15 ✓
4 × 2½ × 2	20. ✓	3 L. Small Stm	
4¹⁵/₁₆ × 2 × 2.5	23 ✓	May 24	
4 × 2 × 1.2	9.4 ✓	5 × 3⅓ × 1½	25 ✓
5 × 2⅔ × 1½	20. ✓	3½ × 2½ × 1.10	16 ✓
8½ × 1⅓ × 2	22.8 ✓	3 L. Small St.	
By Small Stm			
	420.10 ✓		461.3 ✓

3 L. Small Stm
By Buckley May 20 & 23 incl
4 L. Small Stm

Water used by York M. Company as measured by Hiram F. Mills Engineer May 14. 1875.

Time H.M.S.	to H.M.S. A.M.	Quantity of Water drawn in Cubic ft. per Second	Actual fall from flume to Race Feet	Fall from top of Old Dam to Race Feet	Quantity of Water per Mill Power Cubic ft. per Sec.	Number of Mill Powers drawn	Height of Speed Gates No. 1	No 2	No 3.	No. 4
8. 27'18"	10.18'8	355.75	34.21	33.05	25.	14.23	4.12	4.50	4.05	2.56
10.32'17"	11.9.25	355.53	34.29	33.12	25	14.22	4.03	4.55	4.05	2.40
P.M.										
2.7'52"	2.45'40"	372.70	34.18	33.07	25	14.91	4.00	4.43	4.05	2.77
2.49'6"	3. 28'29"	373.00	34.19	33.10	25	14.92	Gate not observed during this measurement			
3. 32	3.45						3.50	4.01	4.08	0.00
		4) 1456.98								
		364.245								

Thursday May 20/75

Drove a Spike into a Stump in the Brook running through the E. Fowle Meadow, near the outlet of Same at the head of Danforth pond— Also in a log on the Northerly Side of the Danforth Bridge, both nails at Surface of Water when it was at the bolt in the rock at head of Ironworks falls—

* Old log in the N. E. Side of the Danforth Stream

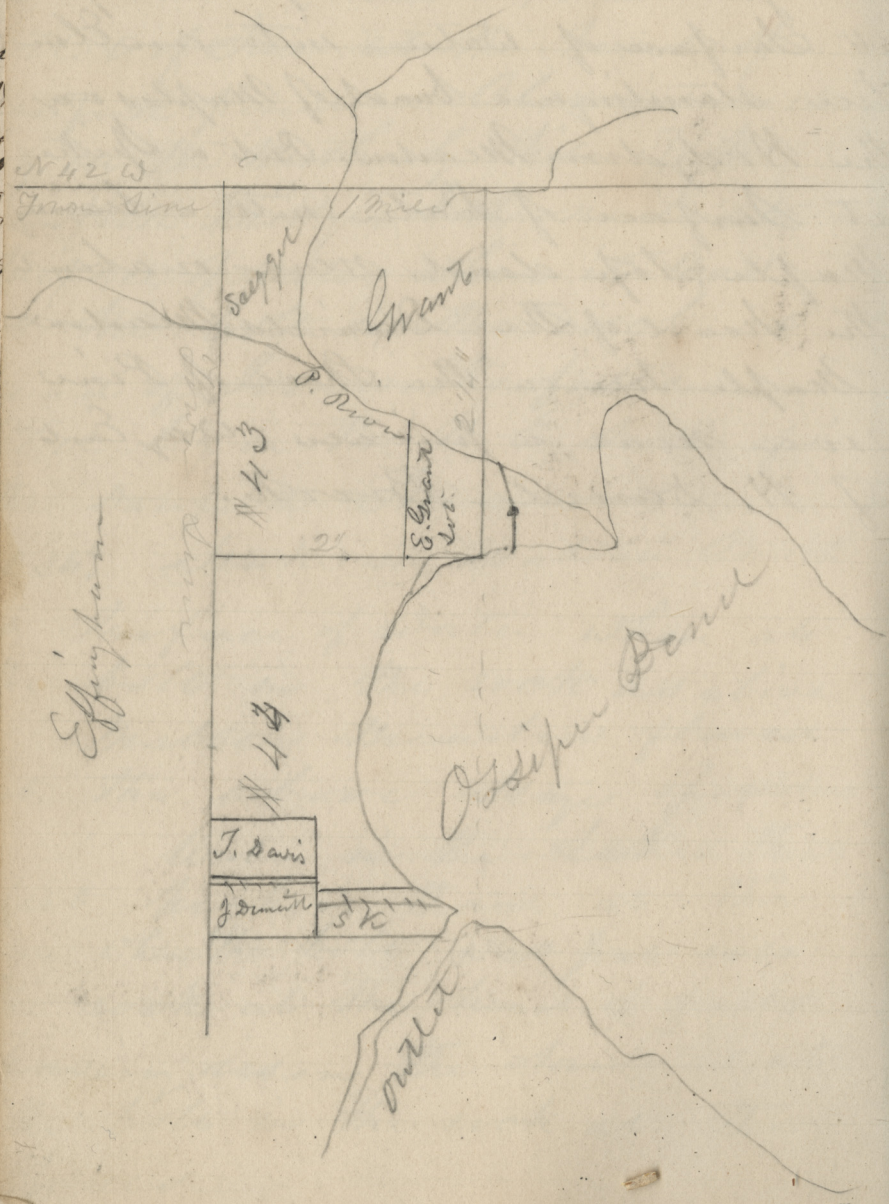
21 26. Stake in Malon Brook at Surface of Water when at the bolt in the rock as above.

Malon Meadow flowed at the above Stage of Water

Water in the Lake three feet higher than at the time when the bolt was put into the rock at the head of falls having risen the Same as at the bolt in the rock at the falls—

May 21. Water 3½ in below the
Bolt at the falls and covering
a large portion of the Eben
Hodgdon Meadow — put a Spike
at Surface of water, into an Elm
tree standing in a bunch of Maples on
the Hodgdon Meadow. Put a Spike
at Surface of Water into a leaning
Maple, top dead, near or about
the head of the Daniels Meadow
Maple tree on the Shore of Pine
river near a private way East
of H. Daniels Brook.

Scale One mile to an inch



	Wide	L	D, "	Tan
	40	50	11.7	11.30 - a
			12.	
			12.4	
			36 = 12	

22
27
54
50
42
40
20
60
50
31
20
59
58
583
345
170
13½
10
50
40

Flow of Water in Canal by M. Shop taken May 29/75 between from North Side of Bridge and North Side of M. Shop — Floats as near Centre of Canal as possible

Time of day	Dis.	Width	Depth av.	Time in Sec. av.	Mean Velocity per Sec.	Mill power	
11½ to 11.45 a.m.	50′	40′	11.11 2/10″	13 1/10″	3 28/100′	51 11/14	Cubic ft. under 15 ft. head Whole number Mill powers used 30 88/100

Andrews 1875

May 25th.

4 × 3 × 2	24.
3⅔ × 2⅓ × 1½	12.10
4 × 2 × 2	16.
4 × 2⅓ × 1½	14
5¾ × 3 × 2	34.6
3⅓ × 2⅔ × 2	17.9
5 × 2¼ × 2⅓	26.3
8 × 2 × 1.10	29.4
6 × 2 × 1⅓	16.
8½ × 2 × 1½	25.6
4 × 3¼ × 1⅓	17.4
7 × 2 × 2	28
2⅔ × 2½ × 1.10	12.3
3 × 2½ × 1¾	13.1
5 × 3 × 1¾	26.3
6½ × 2 × 1½	19.6
4⅔ × 2¾ × 1⅔	21.5
3½ × 3 × 1⅔	17.6
7⅔ × 2¼ × 1⅔	28.9
4½ × 3 × 1¼	16.10
6 × 2 × 1½	18
4 × 2⅔ × 1.10	20.2
8 × 2 × 2 B.	32
4 × 1.10 × 1.10	13.8
2 L Smaller Stone	500.8

4½ × 1½ × 2 } B.	13
3 × 4¼ × 1½ } B.	19.1
3 × 2 × 2	12.
3⅓ × 2 × 2	13.4

27th.

8½ × 2 × 1½	25.6

1 L. Small Stone

June 4th.

4 × 2⅔ × 2	21.4
8 × 2 × 1½	24.

6th.

2 L. Small Stone

4 × 2⅔ × 2⅓	24.11
3⅓ × 2 × 1.10	12.3
5½ × 3 × 1⅓	22.
3 × 2⅔ × 2	16.
5½ × 2 × 2	22.
8 × 3 × 1⅙	28
5 × 2 × 1½	15
5 × 2½ × 2	25
5 × 2 × 2	20
5 × 2½ × 2½	31.3
4 × 2½ × 1⅔	16.8
5 × 2 × 1⅔	16.8
3 × 3 × 2½	22.6
4 × 2½ × 1½	15.

115.6

July 12th 1875

Went to Berlin Falls this P.M. for Berlin Mills Lumber Co. 13th A.M. Went to Whitelaws Willands farm. Water in ravine near the bank of river back of House about 350' long by 8' av. wide and 1 ft. deep.

Began Levels at top of a Stake driven down to Surface of Water above the raft of logs.— and about three hundred feet above the mouth of a creek at the Southerly end of Willands field and near an old Stump blazed

	B. S.	F. S.	+	−	
					+
1	10.684	2.134	8.550		8.550
			+		+
	9.923	5.352	4.571		13.121
				−	+
	4.671	5.262		.591	12.530
				−	+
	4.602	4.623		.021	12.509
				−	+
	1.170	3.240		1.070	12.439
			+		+
	3.073	2.914	.159		12.598
				−	+
	5.117	6.250		1.133	10.465
			+		+
	2.980	2.555	.425		10.890
				−	+
	3.660	7.420		3.760	7.130
				−	+
	1.934	9.037		7.103	0.027
x	9.037	3.265	5.772		5.799

in the road

Brook running at surface of Water in River

From surface of water in ravine in Chas. Gates' field to water in river in field near standing water back of bank

B.	F.	Water in River	
8.455	9.873	−1.418 water	B. S in field
9.873	4.286	+5.587	Av. Bank

	B	F			
×	59.854	54.055	+5.799	+5.799	
	3.900	3.750	+.150	+5.949	
	5.645	6.364	−.719	5.230	
	5.237	5.290	−.053	5.177	
	9.39	4.59	+4.800	9.977	
	3.24	6.11	−2.870	7.107	
	6.346	7.514	−1.168	5.939	
	4.707	0.000	+4.707	10.646	
	5.18	8.16	−2.980	7.666	7.666
	3.53	6.08	−2.550	5.116	5.116
	5.73	5.91	−.180	4.936	4.936
	5.61	5.20	+410	5.346	5.346
	4.47	2.01	+2.460	7.806	7.806
	8.066	2.564	+5.502	13.308	+13.308
13th.	5.433	2.975	+2.458	15.966	
	9.810	.480	+9.330	25.096	
50' W of Rush	6.815	3.970	+2.845	27.941	
	4.917	2.035	+2.882	30.823	
	.334	10.963	−10.629	20.194	
	158.214	138.020			

July 13—

Brick Journal

B	F	+	+	
158.214	138.020	20.194	20.194	
4.605	10.61	6.005	14.189	
.785	7.298	6.508	7.681	
3.052	10.527	7.475	306	Water at Brick 2½ feet up Raft—
166.656	166.450			

.206 = 2½"

Back sights at Surface of Water Birch Fire

B.	F	+	~~20.194~~	
10.527	1.595	8.932	8.932	
8.74	.520	8.220	17.152	
9.315	6.455	2.860	20.012	
11.030	.780	10.250	30.262	
2.450	4.954	2.594	27.758	250 W. & S.H.
5.115	7.085	1.970	25.788	
.340	10.530	10.190	15.598	
2.693	5.020	2.367	13.231	
1.064	8.637	7.573	5.658	
3.030	9.390	6.360	.702	Surface of water
9.390	3.930	5.460	4.762	
63.694	58.936			

5 7/8
2 1/2
2 3/8

July 13. 1875.

Levels of Surface of Water from a birch tree on the Shore of the river near Paul Bickford's House in Milan to a point five Hundred feet down Stream at Surface of Water. No logs in the river between the above points. The Birch tree is at a mean the Base—

B.	F.	
10.107	2.410	
3.905	11.650	
14.012	14.060	.048—

From Surface of Water in Chadwicks' field to Surface of Water in river

B.	F.	D.	
8.455	9.873	1.418	Water in river Lower than in field.

Average heights of River bank 5.59' above water in river

July 14th 1875

2d trial from head of raft

Same peg as first

B				
11.214	9.680	+ 1.534	+ 1.534	Low Spot
9.680	3.420	+ 6.260	+ 7.794	Water in O
9.800	2.193	+ 7.607	15.401	Williams fi[eld]
6.690	9.800	− 3.110	+ 12.291	
6.320	6.075	+ .245	12.536	
4.403	6.530	− 2.127	+ 10.409 ✓	
48.107	37.698			
6.717	6.677	+ .040	10.449	
5.100	4.910	+ .190	10.639	
4.770	8.600	− 3.830	6.809	
5.160	11.870	− 6.710	+ .099 ~~.91~~	Bench on pine 11 .099 Water 3½
69.854	69.755			
11.870	6.050	+ 5.820	+ 5.924	
4.074	10.205	− 6.131	− .212	Water
10.205	3.440	+ 6.765	+ 6.553	
5.187	6.305	− 1.218	+ 5.335	
5.666	5.260	+ 406	+ 5.741	
9.355	5.188	+ 4.167	+ 9.908 ✓	
116.111	102.203			
3.540	5.760	− 2.221	7.688	
4.205	6.862	− 2.657	5.031	
8.726	3.110	+ 5.616	10.647	
4.814	[illegible]	− 5.086	5.561	
4.5[illegible]	[illegible]	.120	+ 5.541	
4.[illegible]0	[illegible]	.196	6.667	
1[illegible].2[illegible]6	14[illegible].29			

Brick use

B	F			
146.496	140.829		5.667	
4.266	4.032	+ .234	5.901	
3.078	9.444	− 6.366	− .498	Water in River
9.444	1.215	+ 8.229	7.731	
8.625	2.93	+ 5.695	13.426	Left off last night
6.700	1.15	+ 5.550	18.976	
11.500	2.92	+ 8.580	27.556	
190.076	162.520	+	+	
5.440	4.360	+ 1.080	28.636	
5.534	8.687	− 3.153	25.483	
1.103	6.267	− 5.164	20.319	
2.575	10.660	− 8.085	12.234	
0.000	12.828	− 12.828	− .594	Water by a Brick Line at the Beam
204.728	205.322			

Superficial

Morning of July 15. 1875

Water at head of raft has fallen 1¼" since morning of 13th.

15th.

No Water on Ellenwood's field. Creek flows back about 80 ft. from river about six ft. wide at

Bank of river on Widow Twitchell's field 9.69 ft. above water, low ground back of river bank 5½ ft. above water in river

5.425	33.825
6.72	6.765
6.62	1.26
7.46	5.195
7.60	
4	

Water in bank 3.26 ft. above water in river

Water from river flows up a Creek to the farm Cropping, water ten inches below top of Embanking to Bridge River bank about the same as on the above farm

Should think this pitch of water flows 4 Acre more than is flowed by the natural flowage of the Creek. This is guess work no land on this field to be flowed

East of the above Creek at
this Stage of Water — bank
East of Creek av — about
one foot lower than west
of Creek ——

Lowest ground in L. Coffin's
field back of his house
Water at river 10.00 Bench on Elm tree
Wat. Surface F 3.93 on Bank
B. 6.07 ft. No of River Bank
10.00
F 9.43
.57+ Lowest Ground back of House
5 or 6 rods only

Examined the Shore of Evan's field
from "the Boom" to a dead Tree
on the bank — Could not see
that the bank had been injured by
logs except in two places of from
five feet in length Ea. near
the lower end, that had the ap-
pearance of being Gouged by logs —
Grass, Weeds & Shrubs grow to the waters'
edge about the entire length ——

2d

July 14th 1875.

Levels in the town of Milan at the Surface of the water in the Androscoggin River from a point on the Shore above the Raft of Logs and about three hundred feet above the mouth of a Creek at the Southerly end of Wheeler field and near an old Stump blazed —

B.	F.	D. +	T. D. +	
11.211	9.680	1.534	1.534	Low Spot of Water in Wheeler field
9.680	3.420	6.260	7.794	
9.800	2.193	7.607	15.401	
6.690	9.800	3.110	12.291	
6.320	6.075	.245	12.536	
4.403	6.530	2.127	10.409	
6.717	6.677	.040	10.449	
5.100	4.910	.190	10.639	
4.770	8.600	3.830	6.809	
5.160	11.870	6.710	.099	Bench on pine Water .312 — bench
11.870	6.050	5.820	5.919	
4.074	10.205	6.131	.212	Water in river
10.205	3.440	6.765	6.553	

96.003 89.450

Up.

Brit Forward

	B.	F.	D.	I. D.	
	96.003	89.450		+ 6.553	
	5.087	6.305	− 1.218	5.335	
	5.666	5.260	+ .406	+ 5.741	
	9.355	5.188	+ 4.167	+ 9.908	
	3.540	5.760	− 2.220	+ 7.688	
	4.205	6.862	− 2.657	+ 5.031	
	8.726	3.110	+ 5.616	10.647	
	4.814	9.900	− 5.086	5.561	
	4.590	4.610	− .020	5.541	
	4.510	4.384	+ .126	5.667	
	4.266	4.032	+ .234	5.901	
	3.045	9.444	− 6.399	− .498	Water in river
	9.444	1.215	+ 8.229	+ 7.731	
	8.625	2.930	+ 5.695	13.426	Struck of last evening
July 15th	6.700	1.150	+ 5.550	18.976	
	11.500	2.920	+ 8.580	27.556	
July 15th.	5.440	4.360	+ 1.080	28.636	
"	5.534	8.687	− 3.153	25.483	
"	1.103	6.267	− 5.164	20.319	
"	2.575	10.660	− 8.085	+ 12.234	
"	0.000	12.828	− 12.828	− .594	Surface of water at a Rock Tree below the Barn New Paul Richfield
	204.728	205.322			

Diff. 7/8"

Dep 1 1/4" Water having fallen between
= 5/8" beginning & close

August 20. 1875

Went to Standish to examine Watchic Pond

Watchic Pond is about two miles long by ½ to ⅝ mile wide

In it are three Islands — Outlet of Pond at this time 3½ ft. wide Water One foot deep

Water on one side and two ends Shallow. Other side bolder Shore —

May be drawn three feet lower to advantage

If water in the Pond is raised 4 or 5 ft. above its present level, ten to fifteen per ct/ will be added to the water Surface, from two to three feet deep on what is now a bog — I think the right to carry the water at the above heights, say 4 or 5 ft, can be secured

for a Small Saw —

By raising the water five feet you will draw say Seven feet —

At the Outlet is a Grist Mill with two runs of Stones, an Old Saw Mill with an up & down Saw, a Stave Machine & plane a two Story House in decent repair except Shingles 164 Acres of land mostly covered with growth, said to be 100 M. Ft. and Good pine in a Thrifty State, will pay better to Stave than Cut —

Mill Run

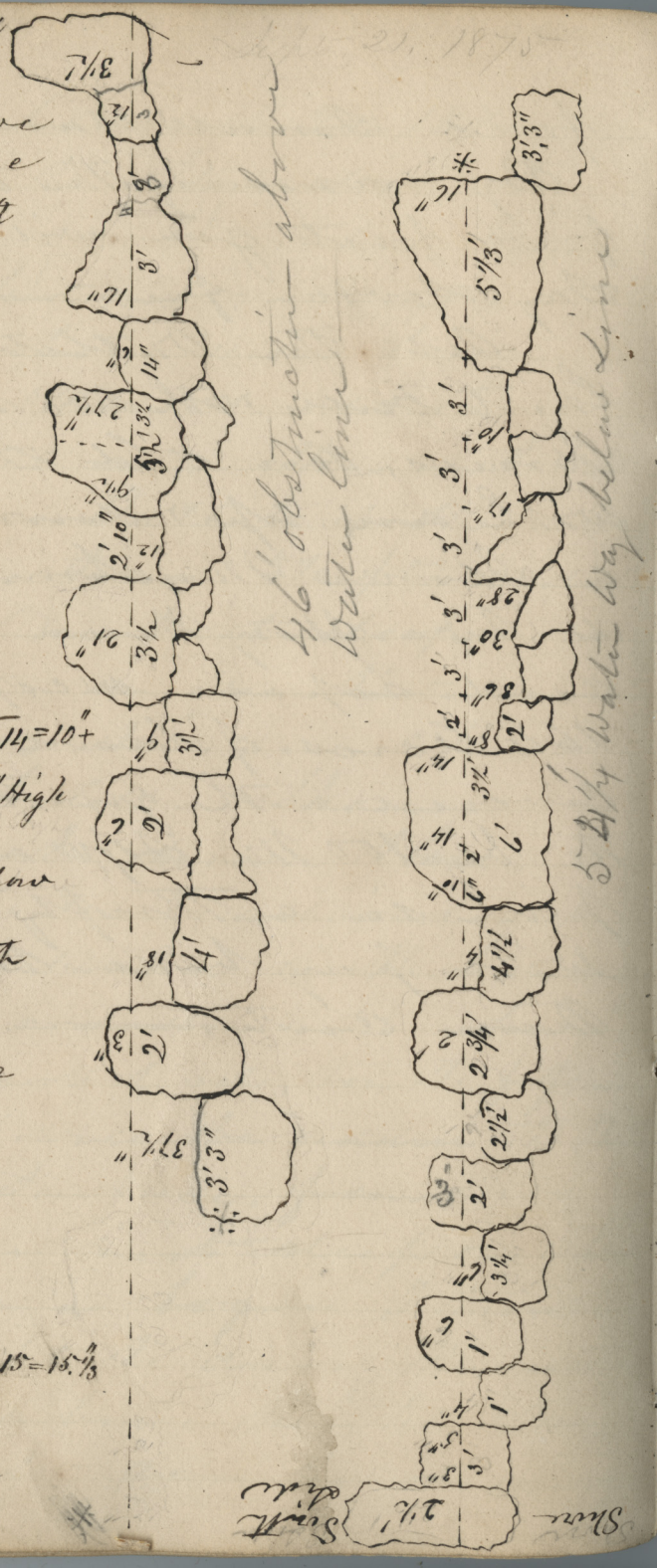
Rock above Water Line

Dis.	Height
9'	8"
3'	8"
1 1/6'	6"
3 1/2'	27"
5 1/2'	20"
2	6"
2	3"
5 1/3	8"
3 1/2	14"
2 1/2	9"
2 1/4	24"
2	3"
1	6"
3	4
46 1/4	141 ÷ 14 = 10"+

46 1/4' long av 10" High

Waterway below Waterline

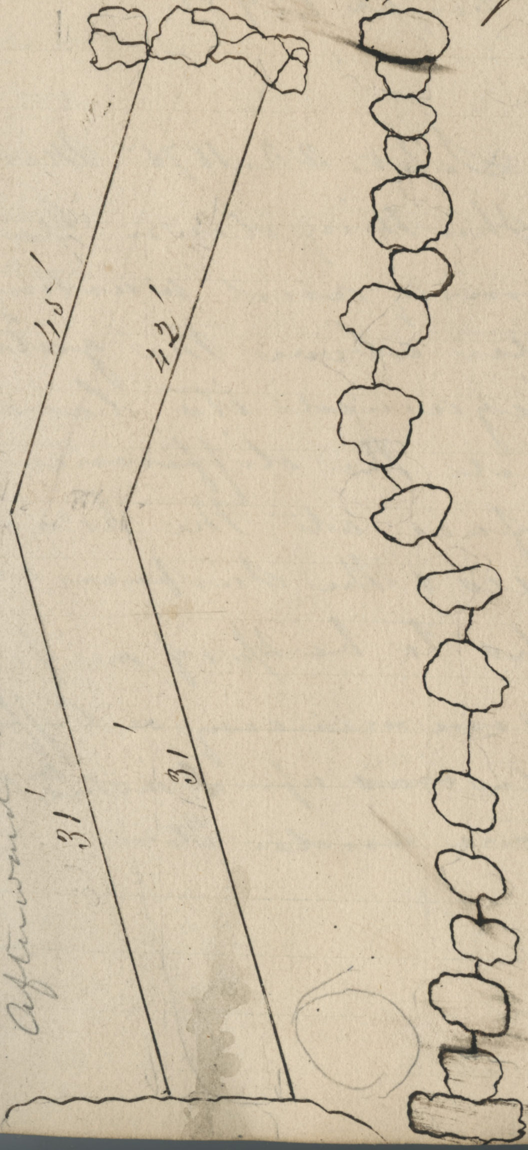
Dis	Depth
2' 10"	12
3.6	9
4	18
3.3	37 1/2
3	10
3	17
3	28
3	30
3	36
2	8
4.6	4
2.6	9
3.3	6
1	4
41' 10"	229.6 ÷ 15 = 15 1/3"



Sept. 21st 1875

Water at head of Ironworks falls, Effingham today 4½ ft. below bench in the rock —

Area of Section of Water when Coffer Dam is built 54½ Square feet.



Water was first on bottom Platform at Water line
afterwards raised 1' 29"

9.5
41
50.5

4.2
3.1
7.3

Effingham Falls

Sept. 21/75

Surface of Water at head of Falls 4.50 ~~3.21~~ ft. below Bench on Rock.—

Surface of water above ripsa 3.21 below Bench on rock

Diff in height 1.29 ft.

Sept. 23. 1875 Morning.

After Shutting down Gates this morning and waiting until the water above the gates had regained its level I found the difference between the Surface at the head of the falls & the Surface above the ripsa to be 4/100 of one foot before commencing to Open down two gates ~~was~~ were up 4 inches & caused by a stone under it—

Oct 4. 1875
Levels from Spike in tree to Water in Ossipee Lake

B	F	
.47	10.205	9.735

Oct 5/75
Foote bush Sights bench on rock — Gates closed tight

B.	F	
5.156	8.487	Surface of Water near Bench
8.487	9.6~~2~~3	Top of Dam

Below & above Rope

B	F above rope	
5.53 —	5.43 =	.10

Water 0.18 above 4½ ft. ^cut^ mark on rock

Oct 5/75 ~~Water~~ When the water ~~at~~ had fallen 3.33 ft below the bench on the rock at the head of Ironworks falls. It had fallen 1.15 ft at the foot of Danforth Pond, ~~and~~ the foot on Great Ossipee Lake and 1.055 ft ~~[illegible]~~ at the head of Danforth Pond on E. ^L. Morrisons^ ~~Fox[illegible]s~~ Mead...

Oct. 5/75: Transferred a bench mark at foot of Dunfurth Pond to a Spike in a maple tree on the Northerly Side of the Bridge and Easterly Side of the Outlet. — Said Bench being three feet above the Surface of the water as it was when it stood at the bench on the rock at the head of Ironworks Falls — Also transferred bench at Surface of water on J. Thurstins Meadow head of Dunfurth Pond to two Nails in an Elm Tree on the meadow, (top dead,) Said nails are three feet above the Surface of the water in the Pond as it was when the water at the head of Iron Works falls was at the Bench on the rock. —

Took levels in seven places in Thurston & Fowle's meadows, head of Dunfurth upper pond, average 1.09 ft. above water

in the pond.

Oct. 6/75 — Back Sight bench on rock head of Falls. Fore Sight Surface of water foot of rock —

$\overset{B}{5.14} - \overset{F}{8.50} = 3.36$

Mark bench on Hemlock tree on shore of O. Lake new outlet. (nail driven in a knot.) ten feet above surface of Water in the Lake, when water stood 3.36 ft. below bench on rock at Ironworks Falls.

Boy near Hemlock 5 ft. below bench on Hemlock.

Water in Pond by Eben Hodsdon's Meadows, three feet lower than when the Nail was put into the Elm tree —

Oct. 6/75 Levels from Lake up Pine River —

B.	F
7.30	6.95
9.68	2.985
1.745	4.94
6.37	4.20
3.09	1.88
4.36	4.865
4.52	3.23
4.235	4.875
4.353	5.25
4.59	4.82
10.60	2.60
1.32	75
4.405	11.00
.425	7.65 Water at the bend by the little meadow — above Pine River Bridge
66.995	65.995 = 1.000 ft. + above Pond
7.65	5.70

74.645 − 71.695 = 2.950 Little meadow above water in Pond —

+

Oct. 6/75

Surface water in Cove at the Eastern Side of Hobbs Meadow — Water 3 ft. below Bench on E. Hobbs Meadow

Bench mark in Old Stump

Top of ridge dividing the Meadows

Water in Bear Camp near R.R. Bridge

Bench in Elm Tree

Bench on 2d Post R.R. Bridge — Spike in the Post

B. 6.38	F. 3.970	
6.12	1.82	
M. 3.53	4.71	
6.38	5.59	
22.41	16.095	
5.60	2.71	
2.71	5.46	
5.295	4.215	
5.595	7.813	
7.813	4.352	
4.17	0.000	
53.593	40.645	
40.645		
12.948		

41.610
36.298
5,312

Oct. 7/75

Water in Bear Camp 5.317 ft.

Spike near the Railroad Bridge than at the Pond last evening — Began the above levels yesterday P.M. Came in dark so early could

not finish — Rained hard all night & until today noon — may have risen in the pond two inches. Had not time this P.M. to examine it.

Top of ridge dividing meadows 9,205 ft. above water in the pond as it was Oct 6/75 P.M. — Dan'l Hobbs and Frank his son say they have seen the water from the lake flow back so as to cover the ridge and that they have sailed over it in a boat at the point where the road crosses which is a few inches lower than where our levels were taken. They say the flow when they crossed the ridge was not faster than the Bear camp at this time

Oct. 8. 1875

B. Bench on Elm Tree E Heald meadow
4.645
6.76 F. Water in Pond
2.115 water in Pond below bench
Water from Pine river over the Moses Merill Meadow also on Grants Meadow

Water risen in Pond about One foot, On the Moses Merill Meadow about 3½ ft.

Oct 8/75

Levels from Pond to Folsoms Swamp

Back Sights Pond

B	F	
11.08	3.084	Spike in Heald Bank
3.084	6.42	Surface of water in
8.57	7.21	To Folsoms Swamp
22.734	16.714	

22.734
16.714
6.020

B	F
7.21	8.806
5.815	2.20
13.025	11.006

Back to Spike

13.025
11.006
2.019
8
5.981

Back Sight Pond
10.10
6.59 F. Smith meadow above Pond
3.51

11.654
13.63
1.976

.8 85

a

Swamp on John W. Folsom 55
" " N. Miller 30
" " Albert A Perkins 8
" " Jabez Munn 8
" " N.C. Folsom (25) 10
" Joseph Hodsdon 50
" J. Smith Jr. Est 15 ~~30~~ 40

Oct 8/75
Levels from Pond to Smith
Meadow thence to Joseph Hodsdons
Bog

B	F	
10.10	6.59	Smith Meadow
9.823	7.15	
19.923	13.74	
3.74		
6.203		

Berlin Falls Oct 7. 1877

Level from Centre of Hutchins Dam up river

Sta	BS	Fore	Diff Elev	
	8.294	3.468		
	6.065	2.987		
	5.088	3.266		
	1.383	5.755		
	5.320	1.620		
31.620	1.870	3.620		
	2.255	11.—		
	8.530	3.508		Evans field
47.585	5.130	2.350	37.607	Thompson field
	5.130	2.90		
	5.480	6.078		
	1.427	4.888		
	4.020		51.473	
	63.592		10.30	
	61.803		61.803	
	1.789			

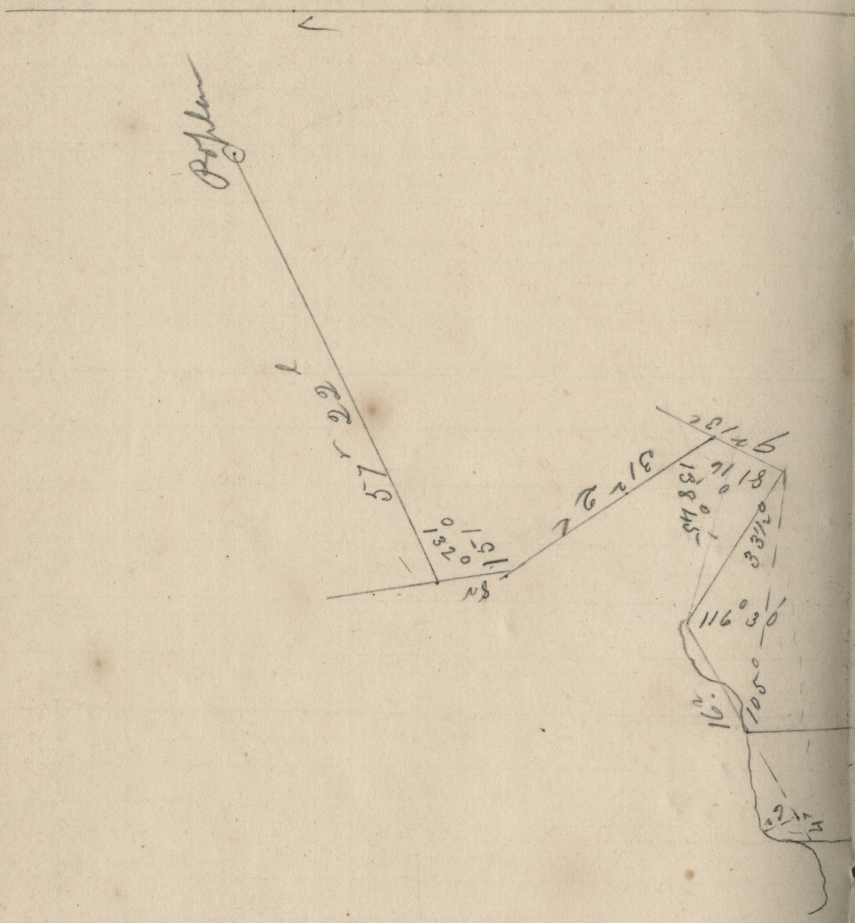
9 o'clock 50'
9/20

1'	''
~~1 15 3/4~~	15 3/4
2 to 2	21 1/4
~~3 . 8~~	~~18 1/4~~
4 . 4	18 3/4
5 . 5	21 1/4
6 . 6	18 1/4
7 . 8	17 1/2
8 . 9	19 1/4
~~8 . 5~~	~~19~~
9 . 9	19 1/4
~~9 . 4 1/2~~	~~19~~
10 . 11	20 1/2
11 . 10	19 3/4
~~11 . 8~~	21
13 . 16	20 3/4
~~16 . 18~~	~~25 3/4~~
12 . 12	22 1/4
15 . 19	22 1/4
14 . 14	23 1/4
~~18 18 1/2~~	~~26~~
~~18 1/2 20~~	~~22~~
18 19	23 3/4
17 . 18	21 3/4
3 . 4	20
19 . 19	23 1/4
20 . 20	23 1/2
21 . 21	22 3/4
22 . 20 1/2	21 1/2
16 . 16	21 3/4
~~17 . 18~~	~~23 1/2~~

Water in June 7' 1 3/4
time 10' 45'' to 11 3/4 am

1 to 2 —	17 1/4''	✓
2 . 2 —	20	✓
3 . 3 —	17 1/4	✓
4 . 6 —	17 1/2	✓
~~5 . 8 —~~	~~17 1/4~~	
5 . 6 —	17 1/2	✓
6 . 8 —	17 1/2	✓
7 . 7 —	17 3/4	✓
8 . 6	16 3/4	✓
~~9 . 12~~	~~17 1/4~~	
~~9 . 8~~	—	
~~9 . 6~~	~~16 3/4~~	
~~10 . 12~~	~~18 1/2~~	
~~10 . 16~~	~~21~~	
~~10 . 18~~	~~21 1/4~~	
~~11 . 16~~	~~20~~	
~~12 . 18~~	~~20 3/4~~	
~~9 . 7~~	~~19 1/4~~	
11 13 1/2 —	18 3/4	
~~11 . 14~~	~~23~~	
10 . 10 —	21	
~~14 . 16~~	~~22 3/4~~	
12 . 13	22	
13 . 14	22 1/4	
~~15 . 16~~	~~23 1/2~~	
~~13 . 13~~	~~21~~	
~~14 . 17~~	~~20 1/2~~	
16 . 17 —	23 1/4	
15 1/2 15 —	24 1/4	
~~16 . 18~~	~~20~~	
18 . 19 —	19 1/2	
~~19 . 17 1/2 —~~	~~23 1/4~~	
17 . 17 —	25 3/4	
19 . 18 —	23 3/4	
20 . 20 —	23	
21 . 21	23 3/4	
22 . 21 1/2	24 3/4	
~~10 . 11~~	~~17 3/4~~	
9 . 10	19 1/4	
~~11 . 8~~	~~20 1/2~~	
14 . 15	23 1/4	

Measurements of Water in June
Measuring Flume June 22/80



118
174 2/5
292 2/5
146 1/5
6
160

146
105 1/2
730
1460
37
1534.7 | 96
144
96
92

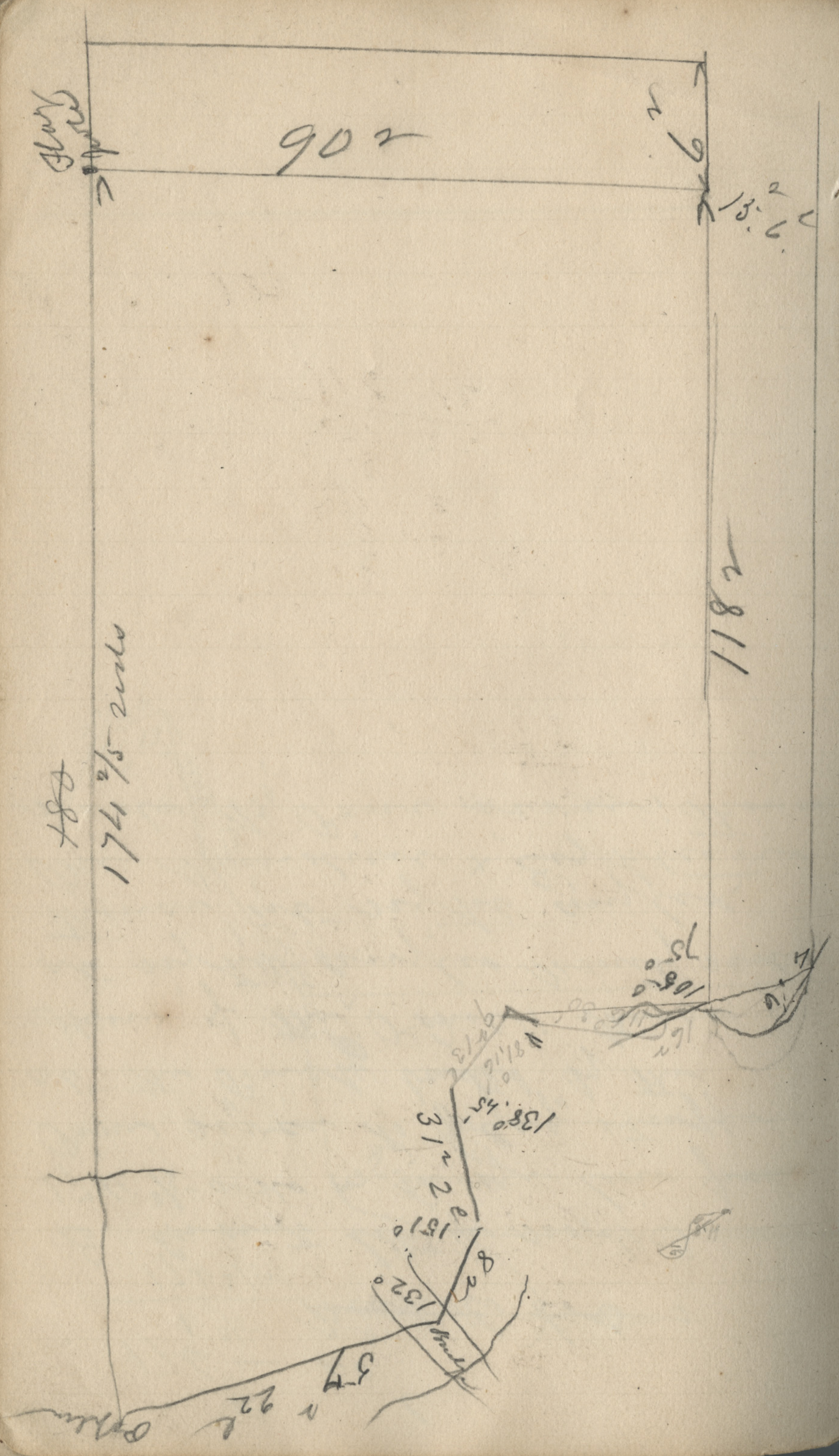
105
6
160 | 630 | 4

~811

~17 1/2

176 — 40
1 3/5 ~~Pickets lot~~
174 2/5

E. Grants lot in no. 43 —
174 2/5 rods in range line from
Pine river to flag staff
at the "Birch bucket" by the
shore of the Pond; thence
at right angles Ninety rods;
thence at right angles
One hundred & Eighteen
rods to Pine river; thence


174 2/5 rods

47

40
16
1 22
57

180
124
304
1522 aw

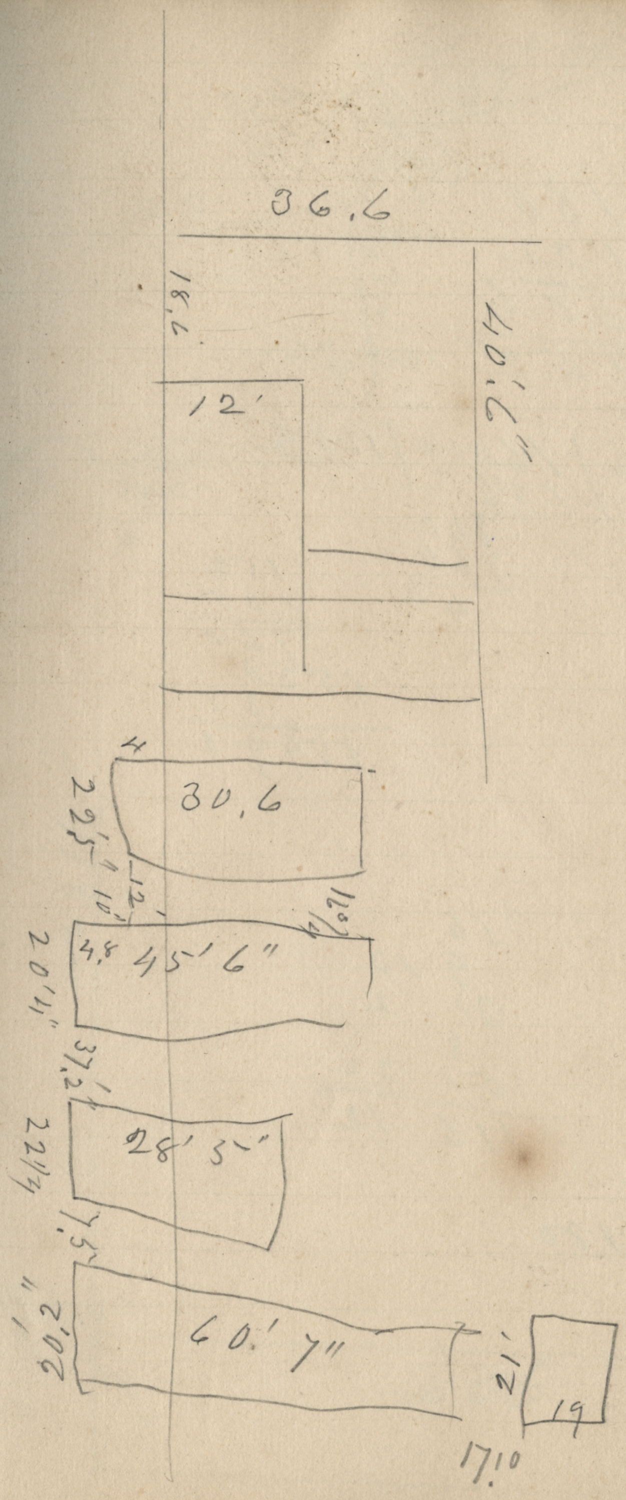
1522 | 160000 | 105-1/4
1522
8000
7600
400

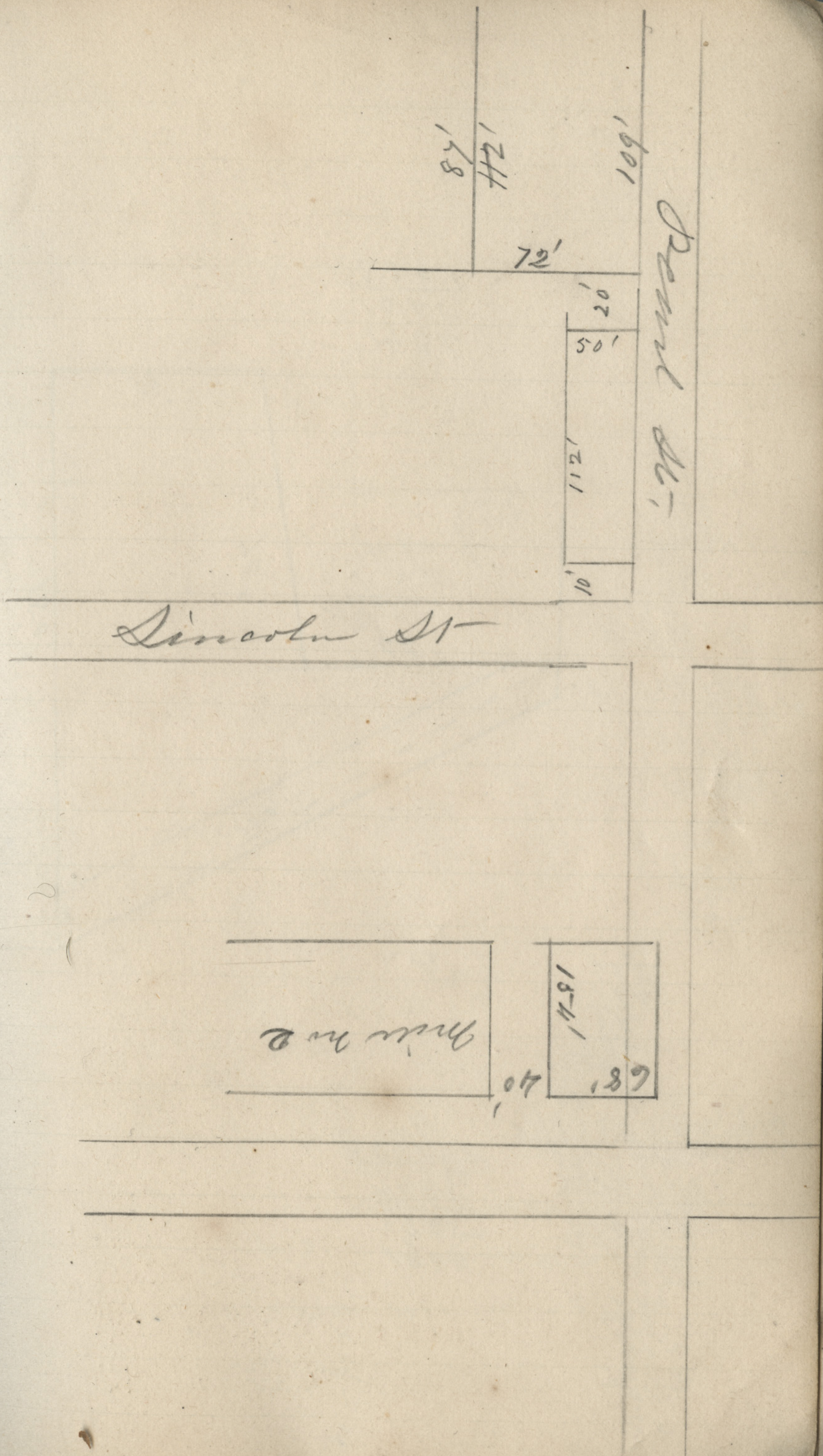
1522
105
7610
15220
38
159918

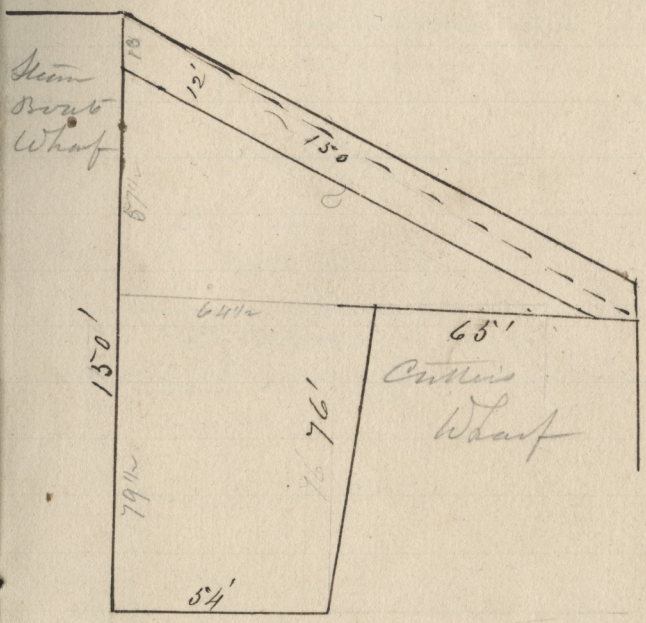
97.

16
9 10
31 2
8
5-1 22
116 12

180


36.6
18.6
12'
40'6"
30.6
4
22.5'
10"
12'
12'0"
4.8
45'6"
20'11"
37.2'
28'5"
22 1/4
7.5'
20.2'
60.' 7"
21'
19
17.10

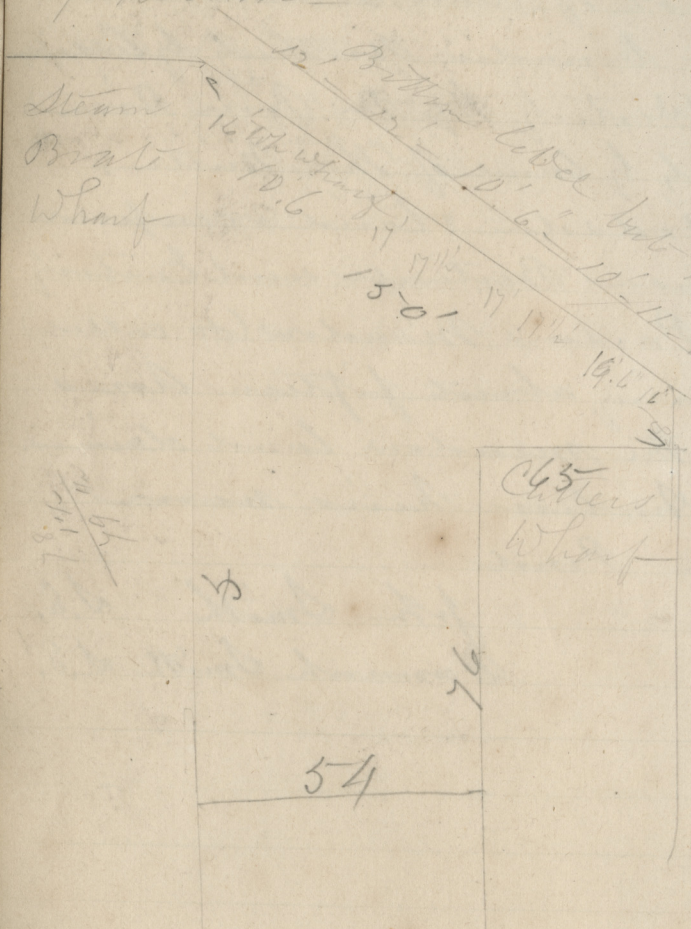

87'
112'
109'
72'
20'
50'
112'
10'
Lincoln St
154'
68'
40'


Steam Boat Wharf
12'
150
64½
65'
Cutters
Wharf
150'
76'
79½
54'

Oct. 15/75

Soundings for Channel & Wharf

7.45 A.M.



John Smith to Thos Dunn
Nov 25, 1853
A tract of meadow land situate in Said
Ossipee bounded Northerly by Ossipee
pond; Westerly by the Pine River;
Southerly by land of Thos. Nutter,
Ebent Hodsdon & land occupied
by Robinson Bothwell and Easterly
by the Parsons Meadow (so called)
containing about fifteen acres
& is all the meadow land claimed
by the Ambrose heirs near
Ossipee Pond —

John Smith L.S.
Hannah Smith L.S.

Lacoma

6 × 2 × 2	24
4 × 1 2/3 × 1 2/3	11.1
5 × 2 × 2	20.
5 × 1 2/3 × 1 1/2	12.6

27) 67.7 (2.5

5 4

13.6

Amos Towle & J. A. O. Hamm
to N. H. Chapman
Sept. 13, 1853 —

A perpetual right to flow all the lands now owned by us or either of us on or around the waters of the Great Ossipee Pond and the Bays connected with the said Pond, situate in the County of Carroll & State of New Hampshire; and the outlets and streams connected with said Bays and Pond by the erection of a Dam across said Great Ossipee River at the head of the Upper Falls on lot No. 35 in Effingham and Freedom — Also a right and privilege to draw the waters from the above described lands bays &c by a Canal or otherwise without being liable to pay to us, our heirs or assigns any damages for so doing

Amos Towle [illegible] L.S.
James O. H. Hamm L.S.

Laamin		Lucomin	
2½ × 2½ × 1⅓	7.6 ✓	5½ × 2 × 3	33. ✓
5 × 2⅔ × 1½	20 ✓	5 × 1½ × 3½	23.9 ✓
5⅔ × 2 × 2	22.8 ✓	5¾ × 2 × 2	23. ✓
3 × 2 × 1½	9. ✓	7½ × 2 × 2	30. ✓
5½ × 1½ × 1½	12.4 ✓	5½ × 2 × 2	22. ✓
7 × 1⅛ × 2½	29.2 ✓	6 × 2 × 2	24 ✓
4 × 1 × 1	4. ✓	8 × 2 × 2	32 ✓
6 × 2 × 1⅔	20. ✓	4 × 2 × 2	16 ✓
6 × 2⅓ × 1⅔	23.4 ✓	2½ × 1 × 1½	3.9 ✓
5½ × 2 × 1½	16.6 ✓	2 × 1½ × 1½	4.6 ✓
6 × 2½ × 1½	22.6 ✓	5 × 1.5 × 1½	10.7 ✓
6 × 2¼ × 1½	20.3 ✓	5½ × 1½ × 2½	20.7 ✓
5⅓ × 2¼ × 1½	18. ✓	7½ × 2 × 2	30. ✓
5½ × 2 × 2	22. ✓	7¾ × 2 × 2	31. ✓
6 × 2⅓ × 2	28 ✓	6¼ × 2 × 2	25 ✓
4½ × 3 × 1.10	24.9 ✓	5⅚ × 1⅓ × 2	13.9 ✓
4½ × 2 × 2	18. ✓	7¼ × 2 × 2	29. ✓
4½ × 2 × 2	18 ✓	3⅙ × 1½ × 2	9.6 ✓
6 × 2⅔ × 2	32 ✓	4½ × 1¼ × 1.5	7.5 ✓
2½ × 1⅔ × 1⅓	5.7 ✓	5¼ × 2 × 2	21. ✓
5 × 2 × 1⅓	13.4 ✓	1⅓ × 1½ × 1⅓	2.6 ✓
×6 × 2⅓ × 1⅔	23.4 ✓	3½ × 2.5 × 2½	21. ✓
6 × 2 × 2¼	27. ✓	3½ × 2 × 2	14 ✓
4 × 1⅓ × 2	10.8 ✓	4 × 1⅓ × 1.10	9.9 ✓
3 × 1.10 × 2⅔	14.8 ✓	5½ × 2 × 2½	25.8 ✓
	462.7 ✓		482.9 ✓

Laconia		Laconia	
3 2/3 × 1 1/2 × 2 1/4	12.4 ✓	7 × 2 × 2 2/3	32. 8 ✓
11 × 2 × 1 1/2	33. ✓	3 × 1.10 × 2 1/4	12. 4 ✓
6 × 1 × 1 1/2	9. ✓	3 1/4 × 1 1/3 × 1.10	7 11 ✓
6 × 1 × 1 1/2	9. ✓	4 × 1.10 × 1.10	13. 5 ✓
10 1/2 × 1 2/3 × 1.10	32. 1 ✓	6 1/2 × 1 2/3 × 2 1/2	27. 1 ✓
5.10 × 2.2 × 2,2	27.5 ✓	5 1/2 × 2 × 1	11. ✓
5 1/2 × 2 1/4 × 2,	24. 9 ✓	4 × 2 × 1.10	14. 8 ✓
5 3/4 × 2 2/3 × 2 1/4	34. 6 ✓	4 × 1 1/2 × 2	12. ✓
5 × 2 1/4 × 1 3/4	19. 8 ✓	7 × 2 × 2 2/3	32. 8 ✓
5 1/2 × 2 × 1.10	20. 2 ✓	4 × 2 × 1 1/2	12. ✓
5 3/4 × 2 × 2	23. ✓	4 × 2 × 1 1/2	12. ✓
4 1/3 × 2 1/4 × 1.10	17. 10 ✓	5 × 1 1/3 × 1 1/2	10. ✓
8 1/2 × 2 × 2	34. ✓	5 × 2 × 1.10	18. 4 ✓
4 1/2 × 2 × 1	9. ✓	5 × 2 2/3 × 1 2/3	22. 3 ✓
7 × 2 × 2	28. ✓	7 1/2 × 2 × 1 1/2	22. 6 ✓
5 × 2 × 2	20. ✓	4 × 1 1/3 × 1 1/2	6. 3 ✓
5 × 2 × 1 1/2	15. ✓	6 × 1 1/3 × 1	8. ✓
6 × 2 × 1 1/2	18. ✓	3 1/2 × 1 1/4 × 1	4. 4 ✓
6 × 2 × 2	24. ✓	4 × 2 × 1 2/3	13. 4 ✓
3 × 2 × 1.10	11. ✓	6 × 2 × 1 2/3	20. ✓
4 × 2 × 2	16 ✓	6 × 2 × 1 2/3	20. ✓
4 × 1 1/3 × 1.10	9. 9 ✓	6 × 2 1/4 × 1 2/3	22. 6 ✓
4 × 1 1/3 × 2,	10. 8 ✓	5 × 2 × 1 1/4	12. 6 ✓
2 1/2 × 1.10 × 2	9. 2 ✓	3 1/3 × 2 1/4 × 1 2/3	12. 6 ✓
5.10 × 2 × 2 1/2	29. 2 ✓	5 1/2 × 2 3/4 × 1 2/3	24. 5 ✓
	496. 6 ✓		404. 8 ✓

Lacunir

3 × 2½ × 1.8	12.6 ✓
4½ × 1½ × 1⅓	9.0 ✓
3. × 1½ × 1⅓	6 — ✓
3½ × 1⅓ × 1⅓	6.3 ✓
4 × 4 × 2	32. ✓
4 × 2 × 1½	12. ✓
5 × 2 × 1½	15. ✓
4 × 2.10 × 2	22.8 ✓
4 × 2 × 1½	12. ✓
4 × 2 × 1⅔	13.4 ✓
3 × 2 × 1.10	11. ✓
4 × 2 × 1½	12. ✓
6 × 2 × 1¼	15. ✓
4 × 1.10 × 1½	11. ✓
4 × 1.8 × 1.8	11.1 ✓
4 × 2 × 1.8	13.4 ✓
8 × 2 × 1⅓	21.4 ✓
4 × 2.8 × 1.4	14.3 ✓
4 × 2 × 1.8	13.4 ✓
6 × 2½ × 1½	22.6 ✓
6 × 2½ × 1½	22.6 ✓
5½ × 2¼ × 1½	18.7 ✓
5⅔ × 3 × 2	34. ✓
3¾ × 1⅔ × 1¾	10.11 ✓
	371.7 ✓

371.7
496.6
404.8
462.7
482.9

27 | 2218.1 | 82⅓
216
58
54
4

Sacramento
June 1/75.

6 x 2½ x 1½
6 x 2½ x 1½
5½ x 2½ x 1½
5.8 x 3 x 2
2½
3¾ x 1.8 x 10½
3.8 x 1½ x 2¼
11 x 2 x 1½
6 x 1 x 1½
6 x 1 x 1½
10½ x 1.8 x 1.10
5.10 x 2.2 x 2.2
5½ x 2¼ x 2
5¾ x 2.8 x 2¼
5 x 2¼ x 1.0¼
5½ x 2 x 1.10
5¾ x 2 x 2
4½ x 2½ x 1.10
8½ x 2 x 2
4½ x 2 x 1
7 x 2 x 2
5 x 2 x 2
5 x 2 x 1½
6 x 3 x 1½
6 x 2 x 2

3 x 2 x 1.10
4 x 2 x 2
4 x 1½ x 1.10
4 x 1½ x 2
2½ x 1.10 x 2
2½ x 2¼ x 1½
5 x 2.8 x 1½
5.8 x 2 x 2
3 x 2 x 1½
5½ x 1½ x 1½
7 x 1.8 x 2½
4 x 1 x 1
6 x 2 x 1.8
6 x 2½ x 1.8
6 x 2½ x 1.8
5½ x 2 x 1.6
6 x 2½ x 1½
6 x 2¼ x 1½
5½ x 2¼ x 1½
5½ x 2 x 2
6 x 2½ x 2
4½ x 3 x 1.10
4½ x 2 x 2
4½ x 2 x 2
6 x 2⅔ x 2
2½ x 1.8 x 1.4
6 x 1.4 x 2

Sandstone

13 1/10 ″ 55 ′

18) 55 / 39 / 110 / 104 / 60 | 3.85 ′ Ans

3.85 × 12 ″ = 46.20 ″ | 6.8

36

128) 10.20 / 1024

46.2
6.8
39.4
5
39.9 ÷ 12 = 3 3/3

4 3 / 5 0 / 215 / 12 / 2580

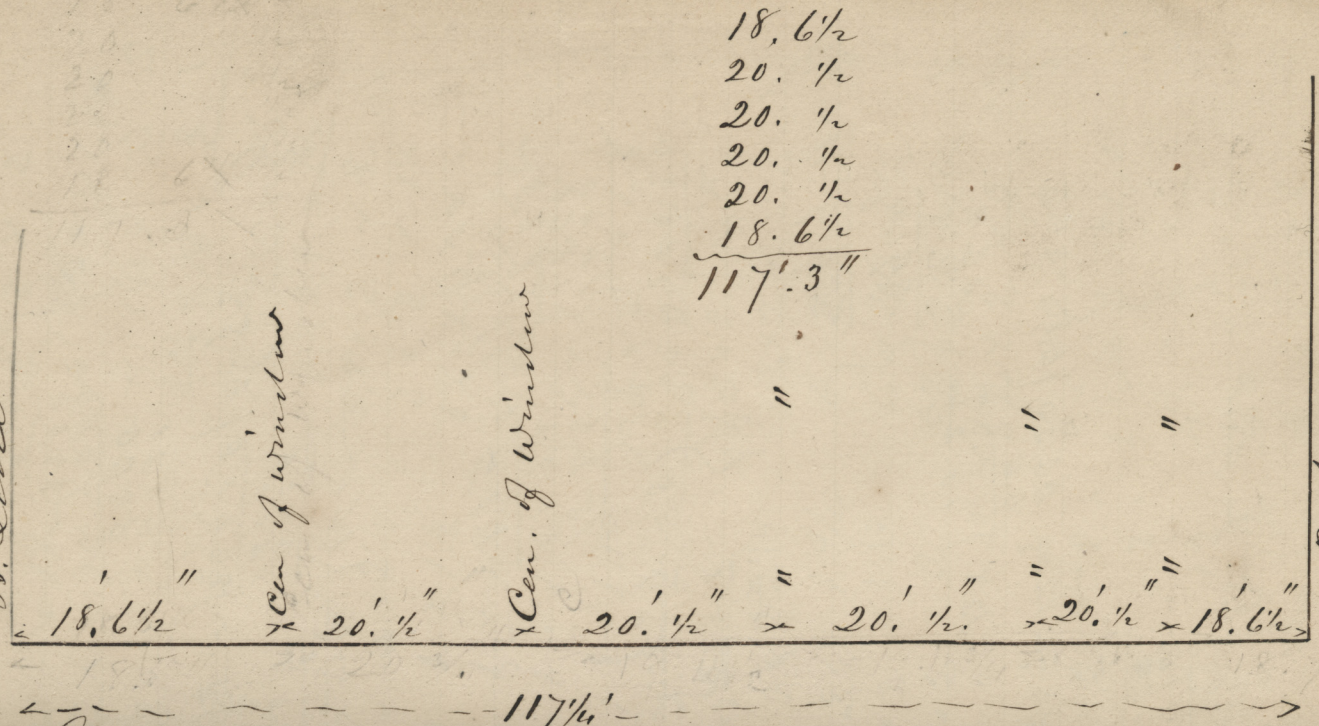
4 3 / 12 / 5 6 / 3 1/5 / 1548 / 172 / 25) 1720

40 / 12 / 480 / 3 1/5 / 1440 / 160 / 25) 1600 | 64 / 150 / 100

51 1/2) 1600 ÷ / 14 / 6400 / 1600 / 205 / 52 / 725) 22400 | 30.88 / 2175 / 6500 / 5800 / 7000 / 5800 / 200

2.11
81
72
81
72

6525


18. 6½
20. ½
20. ½
20. ½
20. ½
18. 6½
117'. 3"
B. Line
Cen. of Window
Cen. of Window
B. Line
18'. 6½"
20'. ½"
20'. ½"
20'. ½"
20'. ½"
18'. 6½"
117¼'
End next Lacunia Street
first Story

Hall & Desk

Sills 2 pc. 60 × 8 × 8
" 7 " 30 × 8 × 8
42 Studs " 20 × 8 × 3
Posts 14 " 22 × 8 × 6
Studs 72 " 22 - 6 × 2

26
14
104
26
364
100
120
250
30
864
21
70
955
18
973

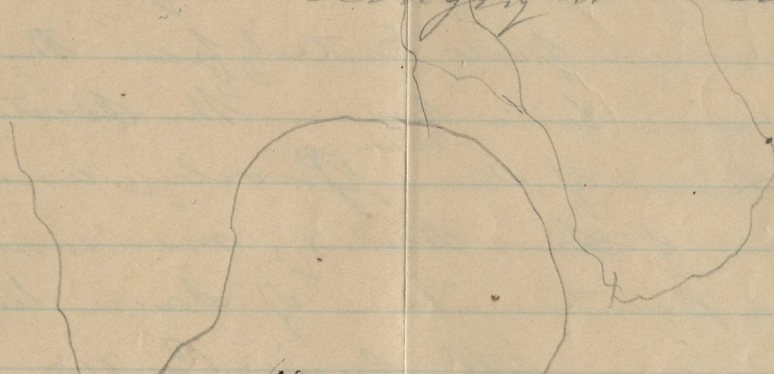
41 10
1 3 4
41 10 125
10 5 6 167
1 1 11 4 13
53 5 5 4

240 28
24
672 12

3.461
4.17
7.63

Beginning at a point on the South Westerly Side of the New road leading from Salmon Falls to Alfred, Seventy nine feet Easterly from the North East corner of Jonathan Rumery's land; Thence Southerly to the intersection of a line Six feet Southerly from the Southerly Side of the late Thomas Carll's Yellow Store and parallel thereto— Said point of intersection being One hundred feet Easterly from the division line between the Southerly Side of said Privity and land of said Rumery, measuring on a Continuation of said line parallel with said Carll's Store; ~~Thence on the said parallel line~~ Easterly to the on the said line parallel to the said Carll's Store and Six feet Southerly Therefrom to the road leading from Salmon

Falls Bridge to Brown Mills;
thence by said road, northerly
to its intersection with the ~~new~~ said
New Road; thence by said
New Road Westerly to the point
of beginning — Excepting and
reserving therefrom a lot of
land with the building thereon
belonging to the late Thomas
Cumble Also excepting a lot
of land with the building
thereon belonging to Earl



25 32.50
56 again
136. "
73.
45
9.45
23 15.00
10 again
16 37.50
37.
15 37.50
40 again 25.00
328
301
216 Pierre Schurch. 12.50
140
158 18.00
215
72
96
206
207
216 J. Packs. estate.

Made an examination of Dams, Weirs & Canals on the river at Barbers Falls with the following results—

16 | 108 | 6
96
12

A
50.790
50.817
027

50.790
3.264
54.054 A

50.817
9.007
59.824 B
54.054
5.799

Dis fm mouth landing
fm S. Falls to Buxton Cen
to Elden's Roads 1650 ft.
fm do to do to
Brooks line } 1750 ft.

nearly a dead level about
11 ft. + the Top of S. Falls
dam is an average

3400' × 24' × 13'7" =
400' × 19' × 12'8" =

22.357 1/2

22 | 178.5 | 8.
176
2 5

357
8
36 5
373
8

35 7.10
1/2
22 | 178.55 | 8.11
176
25
22
35

Saco W P Co To Thos Quimby Dr

1830

Ag 22	Paid Bummers at [illegible] 2 Dinners & [illegible]	.68
" 23	Capt Marshall	63
" 24	do	63
26 & 7	Col [illegible]	1,50
" 28	Capt Marshall	1,20
29	" "	67
30	To Sams	67
31	D. [illegible]	50
		$ 6.48

357.10
8.11 +
365.21
344 245
.965

Aug 24. 1850

Transferred the highest point of the old dam at Salmon Falls near the double mile to a bolt in the ledge in rear of Chisholms Office Said portion of Dam being a point that was not carried away by the 1818 freshet but am told it has been there for forty years or more

Ins 3.564+ Dam
West end of Dam 2.825
Or .739+ East end

2.6

15.3

1.5

15

6 4 3

21.7

16
16

11
11
121

17
17
119
X19
289
121
440 | 200
4
400 | 4400

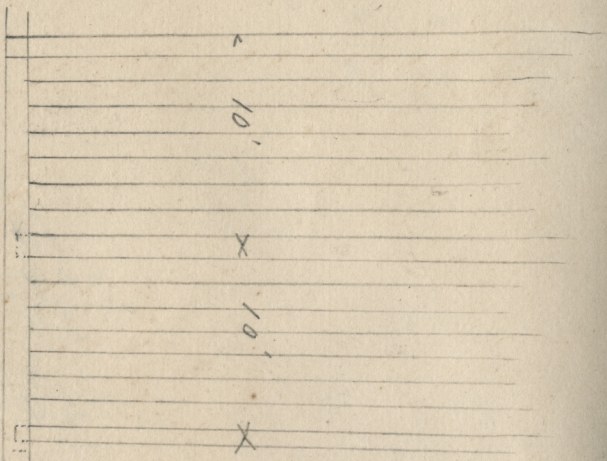
410 | 20.24
4
402 | 1000
804
4044 | 19600
16176

7.8
4
30.8

3 × 3 × 1½ 4½

5 × 2⅓ × 1¼

2.4
10
18
11.8
2 H
14

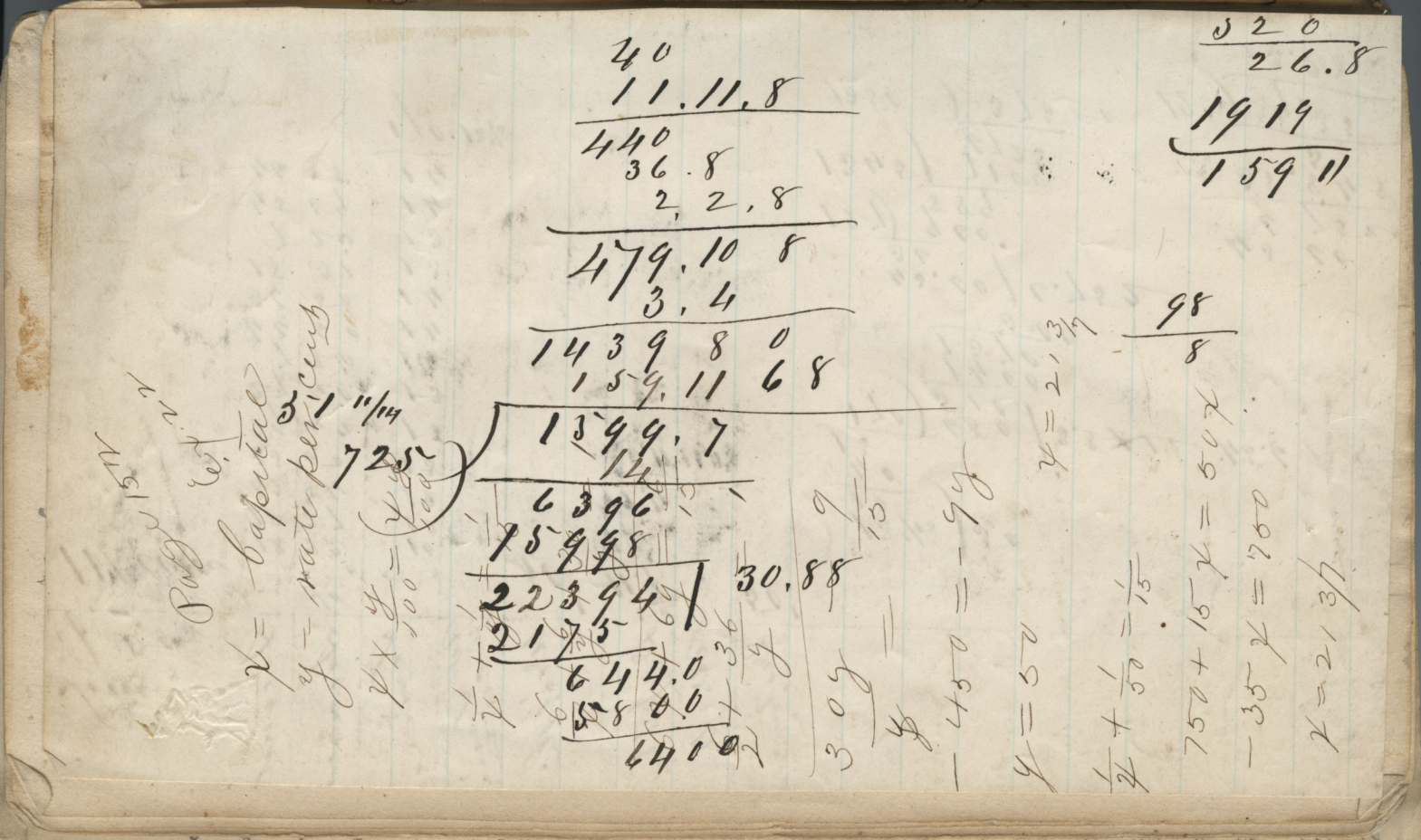


Time of Day	Seconds		Time	Av. Time in cents	Width	Depth	Av. V.	Distance
	In	To						
11½ A.M.	12"	22"	10"		40'	11.7"		50'
	15	27	12			12'		
	42	54	12			12.4"		
	35	50	15			35.11	11.11⅔	
	29	42	13					
	27	40	13					
	7	20	13					
	46	60	14					
	36	50	14					
	18	31	13					
	7	20	13					
	45	59	14					
	44	58	14					
			170	13⅓				

13⅓) 30
10
40
13
170) 630 | 3.8 × 12 = 45.6" per sec
510
1400
1370
300

45.60 | 6.752
36
127) 960
889
1345) 7100
6725
1350) 37500

45.60
6.752
38.848
5
12) 39.35
3.28



5.8 × 2¼ × 1.4
4 × 3¼ × 2

15. 8½
64 8. 1
30. 5

6 3
6
6 9

117.627
130905 18
13.278

2.3
6
2.9

3790 2.800
6244 10 785

260

8,920 6,922 26.035
1,998 28,033

3,437 11085 7648 20,385

10.45
7.575
8.62
7.628
2.246
1.05
1.18
13
01
38.889

.54
.325
.355
2.246
9.29
9.245
10.51
10.56
7.818
50889
38.889
12.

25
11
275
055
275) 820
825

77) 600 (32
57
30

5 7/8
2
30

25000
10560
14440

.25
025

10560 .25000
100

0115
0575

.0460

02
5
11
1.10
11

3 x 2 1/2 x 1

5 1/2 x 2 x 1 1.10

109
113
102
84
19
10

20.047
1 0 1 3 8 5
21,430
20,946
73 1484 + 8 Head of Slum

1192 571
1093 606
98.965-

9.725-
1125-
20,946
69
78
58
19
4
498849
599853
101,004

16 | 108 | 6.75
96
120
112
8

83
97
122
77
12
127.273
8807
101 1 8306

91
87
71-
62
19
1
72.87

76
70
76
63
282

32